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CHAPTER5

CONCLUSIONS AND FUTURE WORK

5.1 Introduction

In order to further summarize the key results of this study and explore its theoretical and practical significance, this chapter summarizes the research results and puts forward some suggestions for future research. In the previous chapter, based on VADER's emotional analysis and pseudo-label supervised learning, we constructed a set of social media emotional modeling process, revealing how Trump's tariff policy towards China in 2025 triggered significant fluctuations in public opinion emotions at different stages. This chapter first summarizes the phased core findings and structural changes, and then puts forward the potential limitations of the current method and the feasible improvement direction, in order to provide reference for future related research.

5.2 Conclusion

This study focuses on the emotional analysis of social media under the background of Trump administration's tariff policy towards China in 2025 (January-May), and constructs a complete research process from data exploration to model construction. The core findings are as follows:

a) The overall emotional mode is negative, and the positive and negative polarization is obvious:

According to VADER's analysis, about 60.4% of tweets are negative, much higher than positive (28.4%) and neutral (11.3%), which reflects the public's concern and aversion to high-intensity trade policies.

Public opinion mood fluctuates obviously with the policy stage:

- Jan-March (policy fermentation period): public opinion is dominated by "wait and see+worry", and negative emotions appear at first, but there is still room for discussion between positive and neutral;
- April (period of extreme confrontation): The sharp increase in tariffs to 125% triggered an emotional outbreak and negative emotions continued to rise. At the same time, there are obvious support voices, positive emotions rise, and polarization of public opinion begins to appear;
- May (temporary easing period): Although the policy turned to easing (tariff reduction+negotiation) in the short term, due to the public's distrust of "policy duplication", the negative emotions did not decrease but increased, reaching the peak of the whole cycle, and the neutral rational content was marginalized.

b) The stage analysis reveals that:

The higher the resilience of the policy, the more extreme the mood; Even in the easing period, the negative "residual emotions" have not dissipated, indicating that the credibility and consistency of policies have a far-reaching impact on public psychology.

High-frequency words reveal the focus of public attention and emotional drivers: positive words focus on negotiation-oriented words such as "transaction" and "agreement", negative words focus on words related to economic shocks such as "trade war" and "market", and neutral words are mostly policy statements, which further reflects the close combination of emotion and policy narrative.

A semi-supervised learning path based on pseudo-tags is proposed: pseudo-tags are automatically generated by VADER's emotional score, a balanced data set is constructed, text features are extracted by TF-IDF, and SVM, logistic regression and random forest models are trained respectively. In the end, the accuracy of the integrated model of soft voting reached 73.05%, which was better than any single model, and verified the effectiveness of the strategy of "pseudo-label+integrated learning" under the condition of lack of manual labeling.

c) Summary of research contribution:

This study has made the following contributions from two dimensions: methodology and demonstration:

- It systematically reveals the evolution path of "tariff policy → change of public opinion structure → emotional polarization";
- Propose the strategy of "Vader pseudo-label+supervised learning" without manual labeling to expand the practicability of emotion modeling;
- The quantitative coupling mechanism between emotional expression and policy influence in social media platform is verified, which provides theoretical and methodological support for future policy communication and public response prediction.

5.3 Future Work

Although the emotional analysis and set model of this study have some findings, there are still some limitations, and the following optimization directions can be considered in future research:

a) The influence of pseudo-label noise on model performance.

Because the emotional tags generated automatically by VADER may misjudge complex semantics (such as irony, fuzziness and ambiguity), the tags are inaccurate and the upper limit of the model is limited.

Suggestion: Active learning or self-training mechanism can be introduced in combination with a small amount of manual labeling to improve the accuracy of pseudo-labels and the generalization ability of models.

b) Lack of deep semantic modeling ability

This study adopts shallow features such as TF-IDF, which is efficient and interpretable, but it is difficult to capture contextual and syntactic information and

identify deep meaning.

Suggestion: Integrate pre-training language models (such as BERT and RoBERTa) and introduce Transformer structure to improve the recognition ability of complex emotions such as implied semantics, irony and pun.

c) Single platform and language source

This study only analyzes the English text of Twitter, but does not cover other platforms (such as Reddit and Facebook) and other language expressions, which limits the scope of generalization.

Suggestion: Expand multi-platform and multi-language public opinion analysis, explore the similarities and differences of responses in different cultural backgrounds, and enhance the breadth and applicability of research.

5.4 Summary

To sum up, this paper systematically reveals the emotional evolution mechanism of social media triggered by different stages of Trump's tariff policy towards China in 2025, and proposes a semi-supervised modeling method based on pseudo-tags. It is found that public opinion fluctuates significantly with the evolution of policy intensity, showing a dynamic pattern of "negative dominance-bipolar opposition-lack of rationality". This study not only verifies the applicability of VADER in political public opinion scenes, but also improves the performance of emotion classification through model integration, demonstrating the feasibility of low-cost public opinion modeling.

Although there are limitations in label quality, model depth and data source, the proposed process still provides a theoretical framework and technical path for future policy public opinion analysis, social media emotion tracking and automatic risk early warning, which has certain practical value and research expansion potential. Improve the breadth and applicability of research.

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