CHAPTER 1

INTRODUCTION

1.1 Introduction

In recent years, the Trump administration's capricious trade policies have caused widespread concern in global markets. Tariff is one of its important means. The move thus triggered retaliation from many countries in the face of additional tariffs imposed on China by the Trump administration in 2018 and new tariffs proposed in 2025 (Wengerek et al., 2025). It also sparked a heated debate on social media. Especially "X" (Twitter), which can provide real-time news and other information directly to the audience. In addition, the frequency of Trump's tweets on the social media platform "X" has gradually increased since he was first elected in November 2016. Among them, tweets containing "product" and "tariff" were found to have a negative impact on the stock market (Gjerstad et al., 2021). Twitter data has been used in a wide variety of applications, including disaster detection and localization (Loynes et al., 2022) and business trend forecasting.

Based on Twitter data, this study uses natural language processing and Sentiment analysis method to deeply explore the changes in public sentiment before and after the launch of Trump's tariff policy on China in 2025.

1.2 Problem Background

social media has played an increasingly important role in politics and economics, and Trump's tweets have received special attention. Previous research has shown that Trump's tweets about policy elicit different emotional responses from the public, for example, Dwianto et al. (2021) used automated sentiment analysis tools such as Brand24 to find that Trump's policies implemented during the COVID-19 pandemic triggered more negative than positive sentiment.

In addition, it was found that analyzing the sentiment of Trump's tweets is predictive. Negative sentiment in tweets correlates with negative market reactions and can be used to infer market trends and public opinion (Pham et al., 2022). Sentiment brought about by social media has a sustained impact on the dynamics of international markets. Sentiment analysis has become an important means of monitoring market volatility during major events, as the resulting market volatility shows regular patterns of spikes (Abdollahi et al., 2024). Today, many studies mainly focus on the impact of Trump's tweets on finance and stock markets (Nishimura & Sun, 2025; Zhang et al., 2024).

However, there is still a gap in the research on public sentiment triggered by Trump's new 2025 tariffs. Therefore, this study will use X data to analyze and compare the static sentiment distribution before and after the introduction of the tariff policy, providing a new perspective for the study of this issue, as well as a new reference for policy making and economic development.

1.3 Problem Statement

It has been proved that tools and algorithms such as Support Vector Machine (SVM), Naive Bayes and VADER can well analyze whether the sentiment of social media text is positive or negative. For example, Faridzi et al. (2023) used an SVM combined with SMOTE algorithm to process Twitter data related to Indonesia's 2022 fuel price increase policy and were able to classify sentiment very accurately. Zangmo et al. (2024) analyzed the tweets of 2024 US presidential election using VADER model and classification algorithm and also found that naive Bayeas performs well in sentiment

classification. Although there have been many sentiment analysis studies for major public events , there are still many gaps in current research on social media sentiment regarding Trump's new 2025 tariffs:

1. There is no analysis of the sentiment tendencies associated with this policy. There are no actual figures to show whether the public supports or opposes the policy.

2. It is uncertain how sentiment will change around the announcement. There is no data to support whether public sentiment changed from support to opposition or vice versa before and after the announcement of the policy.

Therefore, this study collects English tweets related to "Trump's tariffs on China 2025""on "X", performs text cleaning, uses tools such as VADER to determine whether the sentiment is positive or negative, calculates the proportion of different emotions, and then compares the differences in the distribution of emotions before and after the release of the policy, so as to provide data for constructing public opinion prediction models and evaluating policy responses in the future.

1.4 Research Aim and Objective

The study was designed to analyze public sentiment toward Trump's 2025 tariff policy on "X" to see whether they were predominantly for or against it, and to examine whether there was a significant change in public sentiment before and after the policy announcement.

The following steps will be conducted to achieve the objectives:

1. Collect English tweets related to "Trump tariffs" using an existing Twitter dataset.

2.Process the collected data, including cleaning text, converting formats, and filtering languages.

3.Use the VADER tool to determine whether the sentiment of the tweet is positive or negative.

4. VADER sentiment analysis is used to generate pseudo-labels and construct a semi-supervised sentiment classification model.

5. Count the number of different emotions and present them in a chart to see how people's emotions differ before and after the policy announcement.

1.5 Research scope

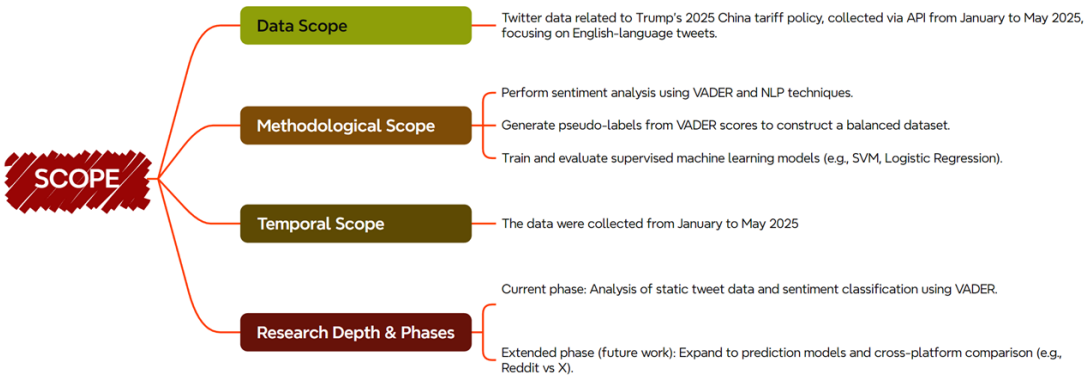
(a) Data scope: Trump tariff tweets before April 2025, mainly analyzing English tweets.

Since Twitter is tightening API access starting in 2023, we will initially use existing public data. Later, depending on the progress of the project, consider using simulated data or applying for advanced permissions to supplement the sample.

(b) Scope of methods: Mainly using open source pre-trained models such as Hugging Face and VADER on Kaggle.

A complete emotion recognition and classification process is established through parameter calling, label identification, result comparison and trend visualization.

(c) Research depth: Initial focus on static data analysis. Depending on the situation to extend to areas such as sentiment prediction compared to cross-platform. This paper mainly focuses on the description of emotional tendencies.



1.6 Contribution of the Project

1. Provide more practical cases of social media sentiment analysis to provide data for future academic research.

2. Create and display emotion maps so that decision makers can refer to them directly.

3. Provide data support for follow-up research, such as analyzing dynamic change trends or comparing different platforms

4. Based on VADER sentiment score, the pseudo-label method is used to construct a semi-supervised model, which enriches the sentiment classification method of social media data.