

CHAPTER I

INTRODUCTION

When investing in instruments such as stocks and bonds, investors often face various problems and must respond or make decisions regarding an issue. The decision-making process of investors is very complex, encompassing both rational and irrational aspects. Traditional financial theories, such as the Efficient Market Hypothesis (EMH) proposed by Fama (1970) [1], assume that investors act rationally in efficient markets where security prices reflect all available information. In this context, investors are considered to make optimal decisions to maximize utility and minimize risk, using models like the Capital Asset Pricing Model (CAPM) and Modern Portfolio Theory (MPT)[2].

However, recent studies indicate that investor behavior is often irrational and influenced by psychological factors. Although investors use various standard financial models and theories to estimate risk and expected returns, they still display irrational behavior in the market [3]. Behavioral finance researchers say that psychological biases influence human decisions, thus they do not behave as rationally as economists suppose. These psychological biases can lead to irrational decisions, which negatively impact investment decisions and market efficiency [4]. Investors often use behavioral heuristics to simplify decision-making, which may lead to judgment errors [5]. According to a study by [4] at the Pakistan Stock Exchange demonstrates how heuristic biases negatively affect investment decisions and perceived market efficiency. The empirical findings show that overconfidence, representativeness, availability, and anchoring biases collectively undermine rational decision-making, leading to suboptimal investment choices and market inefficiencies.

Apple is one of the major companies known for its innovation and high-quality products. Based on strategic analysis and marketing evaluation, Apple has successfully created revolutionary products such as the iPhone, iPad, and Mac, which dominate the market [6]. However, Apple's success has not been without challenges. The company has faced intense competition and legal issues. A recent case that

highlights these ongoing challenges involves a copyright lawsuit against the Apple Watch and the alleged monopoly lawsuit case by the U.S. Department of Justice.

When a company becomes embroiled in a significant case, whether legal, financial, or related to its products and services, it often leads to a surge in media coverage directed toward the entity. [7] find that if a company has a patent infringement lawsuit, it may cause a negative perception by investors. Furthermore, the expectation of legal penalties, fines, and settlements resulting from lawsuits can also impact investor confidence [8]. Given this event, many investors will certainly engage in discussions and express their opinions regarding the issues on social media. Information from social media is crucial to business and investment activities[9]. News sentiment regarding companies reveals not just the market's performance but also plays a role in influencing market trends[10].

This study analyzes investor sentiment from social media concerning two legal cases involving Apple. Utilizing the Naive Bayes algorithm, sentiments are categorized as positive, neutral, or negative. The objective of this study is to examine investor perceptions of Apple and its stock value during these legal issues and correlate the findings of the sentiment analysis with behavioral finance theories. Specifically, the research aims to highlight psychological biases such as overconfidence, representativeness, and availability to explain investor behavior in evaluating the legal challenges faced by Apple.