

**IMPACT OF SOCIAL MEDIA ON STOCK MARKET  
VOLATILITY**

**A Thesis**

**By:**

**Laxmi Prajapati**

**Shanker Dev Campus**

**Campus Roll No.: 1031/071**

**T.U. Regd. No.: 7-2-444-16-2009**

**Exam Symbol No.: 390311/073**

**Submitted to:**

**Office of the Dean**

**Faculty of Management**

**Tribhuvan University**

*In Partial Fulfillment of the Requirement for the Degree of  
Master of Business Studies (MBS)*

**Kathmandu, Nepal**

**July, 2024**

## **RECOMMENDATION**

This is to certify that the thesis

**Submitted by:**

**LAXMI PRAJAPATI**

**Entitled:**

**IMPACT OF SOCIAL MEDIA ON STOCK MARKET VOLATILITY**

*has been prepared as approved by this Department in the prescribed format of the Faculty of Management. This thesis is forwarded for examination.*

.....  
**Asso. Prof. Rita Maskey**  
**(Thesis Supervisor)**

.....  
**Asso. Prof. Dr. Sajeeb Kumar Shrestha**  
**(Head, Research Department)**

.....  
**Asso. Prof. Dr. Krishna Prasad Acharya**  
**(Campus Chief)**

**VIVA-VOCE SHEET**

We have conducted the viva –voce of the thesis presented

**By:**

**LAXMI PRAJAPATI**

**Entitled:**

**IMPACT OF SOCIAL MEDIA ON STOCK MARKET VOLATILITY**

*And found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for the degree of*

**Master of Business Studies (MBS)**

**Viva-Voce Committee**

Head, Research Department .....

Member (Thesis Supervisor) .....

Member (External Expert) .....

## **DECLARATION**

I hereby declare that the work reported in this thesis entitled "**Impact of Social Media on Stock Market Volatility**" submitted to Office of the Dean, Faculty of Management, Tribhuvan University is my original work conducted in the form of partial fulfillment of the requirement for the degree of Master of Business Studies (M.B.S) under the supervision of respected supervisors **Asso. Prof. Rita Maskey** of Shanker Dev Campus, T.U.

.....

**Laxmi Prajapati**

**Shanker Dev Campus**

**Campus Roll No: 1031/071**

**T.U. Reg. No: 7-2-444-16-2-2009**

## **ACKNOWLEDGMENT**

I would like to forward my deepest gratitude to Asso. Prof. Rita Maskey of Shanker Dev Campus who supports me with their invaluable scholarly supervision, constructive comments and suggestions that allow me to furnish this thesis report in this final format.

I would like to pay my sincere thanks to Asso. Prof. Dr. Sajeeb Kumar Shrestha, Head of Research Department and Asso. Prof. Dr. Krishna Prasad Acharya, Campus Chief of Shanker Dev Campus. Besides, I would also like to thank to other respected teachers of Shanker Dev Campus and all the staff of this campus for their help in providing me various kinds of suggestions, information and comments.

Further, my deep regard to known and unknown individual who helped to collect the data at preliminary stage of this dissertation writing.

It is the matter of my immense pleasure to express my deep sense of gratitude and heartfelt respect to my parents for their affection, inspiration and incredible support to precede my academic career.

Laxmi Prajapati

## TABLE OF CONTENTS

	<b>Page No.</b>
Recommendation	ii
Viva-Voce Sheet	iii
Declaration	iv
Acknowledgments	v
Table of Contents	vi
List of Tables	viii
List of Figure	ix
Abbreviations	x
<b>CHAPTER-I INTRODUCTION</b>	
1.1 Background of the Study	1
1.2 Problem of Statement	4
1.3 Objectives of the Study	4
1.4 Significance of the Study	5
1.5 Limitation of the study	6
1.7 Organization of the Study	7
<b>CHAPTER-II LITERATURE REVIEW</b>	
2.1 Theoretical Review	9
2.1.1 Specialized social media on financial markets	9
2.1.2 Predicting Stock Markets Using Big Data	10
2.1.2.1 Social Media Data	10
2.1.2.2 Text Data and Text Mining	11
2.3 Efficient Market Hypothesis (EMH):	12
2.3.1 Behavioral Finance:	12
2.3.2 Information Cascades:	13
2.3.3 Sentiment Analysis and Investor Psychology:	13
2.4 Investor Sentiment	16

2.5 The Effect of Investor Sentiment on Stock Volatility	18
2.6 Empirical Review	27

### **CHAPTER-III RESEARCH METHODOLOGY**

3.1 Research Design	28
3.2 Population and sample	28
3.3 Nature and Sources of Data	29
3.4 Data Processing Procedure	29
3.5 Method of Data analysis	30
3.6 Reliability and Validity of the Data	31
3.7 Research Framework	31
3.7.1 Definition of variable	32

### **CHAPTER-IV DATA PRESENTATION AND ANALYSIS**

4.1 Results	34
4.1.1 Demographic profile of respondents	34
4.1.2 Descriptive Statistics Analysis	37
4.1.3 Summary of descriptive analysis	40
4.1.4 Correlation analysis	41
4.1.5 The multiple regressions analysis	42
4.2 Major Finding of the Study	44

### **CHAPTER-V SUMMARY CONCLUSION AND RECOMMENDATIONS**

5.1 Summary	46
5.2 Conclusion	47
5.3 Recommendations	48

### **BIBLIOGRAPHY**

## LIST OF TABLES

	<b>Page No.</b>
Table 4.1 Distribution of respondents' base on gender	35
Table 4.2 Distribution of respondents based on ages	35
Table 4.3 Distribution of respondent based on educational level	36
Table 4.4 Distribution by impact in trading behaviour by social media	36
Table 4.5 Descriptive statistics of frequency of facebook	37
Table 4.6 Descriptive statistics of frequency of mass media users	38
Table 4.7 Descriptive statistics of frequency of potential investor	39
Table 4.8 Descriptive statistics of firm image	40
Table 4.9 Summary of descriptive analysis	41
Table 4.10 Person correlation coefficients of study variables	42
Table 4.11 Model summary	42
Table 4.12 Structure of ANOVA table	43
Table 4.13 Regression coefficient of independent variable on stock market price	43

## LIST OF FIGURE

	Page No.
Figure 3.1 Schematic diagram of social media on stock market effect Framework	32

## ABBREVIATIONS

ISO	:	International Standard Organization
Ltd.	:	Limited
MBS	:	Master's in Business Studies
NADA	:	Nepal Automobile Dealers Association
SN	:	Serial Number
SWOT	:	Strengths weaknesses opportunities and threats
T.U	:	Tribhuvan University
UN	:	United Nation
US	:	United States
WTO	:	World Trade Organization

# CHAPTER-I

## INTRODUCTION

### 1.1 Background of the Study

Social media, one of the digital media platforms, has allowed people to network, communicate, and do away with national boundaries across democratic nations. Social media comes in several forms, with social denoting interpersonal connection and media serving as a means of networking, knowledge acquisition, review, and sharing. Social media networks include WhatsApp, Snapchat, Facebook, Instagram, LinkedIn, and more. Other forms of social media include social news, microblogging, media sharing, bookmarking websites, and community blogs.

Because social media is still a relatively new technology, not much research has been done to determine the long-term effects, positive or negative, of using it. Nonetheless, a number of studies have discovered a direct connection between increased mental health issues like suicidal ideation, self-harm, loneliness, anxiety, and despair and extensive social media use.

The "new communication democracy" has come up for discussion because of the impact of social media applications. It's a technological innovation that has drastically altered civilization. Through social networking, people can produce and share material, form enduring connections, communicate widely, and even escape reality. These days, we may communicate our true identities and our real lives through text, video, and photo messages sent instantly around the globe. Local issues become global and personal stories become widely known due to the growth of the media. It has also helped to diversify the information flow in our lives, and new technologies are always gaining root and changing the possibilities and practices of communication.

An average user spends two hours and twenty-four minutes a day on social media. Social media users typically check up to eight different apps, including chat and social networking services. 3.5 billion of the 4.57 billion people that use the internet do it primarily for social media. Facebook, YouTube, WhatsApp, Facebook, Messenger, WeChat, and Instagram are the social media networks that are most often used. 73% of

marketers think social media works well for their company. 54% of internet users look for their favorite products on social media. 49% of buyers rely on influencer recommendations when making a purchase from a brand.

In 2019, there were 500 million active stories on Instagram. 91% of social media users utilize mobile devices, such as tablets and smartphones, to access social media platforms. The 1960s and 1970s saw the creation of the internet as a result of efforts by both governmental and private groups to figure out how to enable computer communication. This could be seen as the birth of social media in a certain way. But personal computers weren't widely used until the 1980s and even more so in the 1990s, which paved the way for social media's rise. In the era of online social networking sites, the advent of blogging and the bulletin board system in the 1990s also benefited users. People started to realize the full impact of the internet when they realized that any individual could write on the internet about their thoughts, feelings, and actions, and that anybody could read and comment to these articles at any time.

Research on the relationship between social media and stock market volatility is just getting started, but interest in this area has grown significantly as a result of several high-profile incidents in which social media platforms were instrumental in influencing market movements. The first backdrop in this field is on comprehending how investor behavior and market outcomes might be impacted by the spread of information via social networks. Here is a summary of the fundamental research that includes both groundbreaking and more recent studies to give a complete picture of how social media affects stock market volatility: Basic Ideas Reducing Information Asymmetry: Reducing information asymmetry in financial markets has been made possible in large part by social media. Rapid information transmission made possible by websites like Reddit and Twitter may level the playing field between institutional and retail investors (Bollen, Mao, & Zeng, 2011; Antweiler & Frank, 2004). Sentiment analysis of investors Early research investigated the prospect of using social media analysis to measure market sentiment and discovered relationships between sentiment online and changes in the market. For instance, the sentiment gleaned from Twitter has been connected to stock market performance (Bollen, Mao, & Zeng, 2011). Comparative Research and Empirical Data Social Media and Flash Crashing Examples of how false information or overly emotional reactions to posts on social media have caused abrupt changes in stock prices demonstrate

how volatile social media platforms can be. These incidents highlight how crucial it is to comprehend the ways in which social media affects market dynamics and investor decisions.

**The Retail Investor's Role** A case study of social media's ability to organize individual investors and affect market volatility is the early 2021 GameStop trading phenomenon, in which retail investors banded together on Reddit and other social media platforms to manipulate the stock price of GameStop and other companies (Xu & Chen, 2021). Even though it is obvious that social media can affect stock market volatility, research in this field faces a number of obstacles, such as separating correlation from causation, handling the volume and accuracy of data on social platforms, and keeping up with changing ethical and regulatory requirements.

**The Finance of Behavior** The impact of social media on volatility in the stock market is frequently examined via the prism of behavioral finance, which takes into account the ways in which social and psychological factors influence market results and investing decisions. These psychological biases are amplified by social media, which may exacerbate market volatility (Shiller, 2015).

**Theory of Networks** An alternative method entails utilizing network theory to comprehend the dissemination of information inside social networks and the ensuing influence on markets. This viewpoint aids in delineating the patterns of influence and the rate at which information spreads among investors (Borgatti, Mehra, Brass, & Labianca, 2009). In summary The first history of social media's effect on stock market volatility includes lowering information asymmetry, assessing investor mood, recognizing the power of individual investors, and investigating theoretical frameworks such as network theory and behavioral finance. Sufficient study is necessary to adjust to the ever-changing relationship between social media and financial markets as this sector develops. Social media amplifies market emotions, spreads information quickly, and may even exacerbate market swings, all of which have a substantial impact on stock market volatility. A research by Bollen et al. (2011) claims that social media sites like Twitter can act as "collective wisdom" aggregators, allowing users to exchange news and voice their thoughts about financial markets. These news and opinions have the potential to spread swiftly throughout the platform, affecting other market players' attitudes and behavior.

**Definition:** The influence of user-generated material, opinions, and information published on social media sites such as Reddit, Twitter, and others on the oscillations and instability seen in financial markets is known as social media's role in stock market volatility.

### **Problem of Statement**

Social media analytics has become a popular research area as a result of recognition of social media's rapid expansion and integration into daily life. Numerous studies have examined how social media affects the stock market. Nevertheless, we were unable to locate a study that specifically looked at whether social media has an effect on the Nepalese stock market. Therefore, this work aims to close this information gap.

The problem aims to investigate the impact of social media on stock market volatility. This involves examining how various social media platforms, such as Twitter, Facebook, Reddit, and others, influence fluctuations in stock prices and overall market volatility. Understanding this relationship is crucial for investors, traders, and policymakers to make informed decisions and mitigate risks associated with market volatility driven by social media activity. Definition of Impact of Social Media on Stock Market Volatility: The impact of social media on stock market volatility refers to the influence exerted by social media platforms on the fluctuation and stability of stock prices within financial markets.

It involves analyzing how user-generated content, sentiment expressed, and information disseminated through social media channels affect investor behavior, market sentiment, and ultimately, the level of volatility observed in stock prices. This impact can be both positive, contributing to market efficiency and liquidity, or negative, exacerbating volatility and leading to irrational market movements. Studying this phenomenon involves exploring correlations, causal relationships, and underlying mechanisms between social media activity and stock market dynamics to enhance market understanding and inform risk management strategies.

1. How social media affect the stock market?
2. What is the relationship between independent variables and stock market?
3. What is the impact of the social media variables on its stock market?

### **1.3 Objectives of the Study**

The main objective of this study will be to analyze of the dividend payment practices of commercial banks and its effect on market price of shares of commercial banks. The study will attempt to focus on following specific objectives.

1. To describe social media affect the stock market.
2. To assess the relationship between the independent variables and stock market.

3. To evaluate the impact of the social media variables on its stock market.

#### **1.4 Significance of the Study**

The impact of social media on stock market volatility has become a significant area of interest for researchers, investors, and policymakers alike. The rationale for studying this phenomenon hinges on several key considerations that reflect both the increasing influence of social media on public opinion and its potential effects on financial markets. Here are some critical aspects that justify the importance of this research topic:

**Increased Information Dissemination Speed** Social media platforms, such as Twitter, Facebook, and Reddit, enable information to be shared and disseminated at unprecedented speeds. This rapid distribution can lead to immediate reactions in the stock market, as investors and traders quickly adjust their positions based on the latest news, rumors, or sentiments expressed online.

**Enhanced Market Efficiency or Distortion** Studying the impact of social media on stock market volatility can help understand whether social media contributes to market efficiency by disseminating information more broadly and quickly among a larger group of investors or if it leads to market distortions. For instance, unfounded rumors or deliberate misinformation spread through social media can cause unnecessary volatility, leading to market distortions.

**Democratization of Information** Social media has democratized access to information, breaking down barriers that previously existed due to the dominance of traditional media and financial institutions. This shift potentially levels the playing field for individual investors but also raises questions about the quality and reliability of the information being disseminated.

**Influence of Retail Investors** The rise of social media has coincided with a surge in retail investor participation in the stock market. Platforms like Reddit's *r/wallstreetbets* have shown the ability to mobilize large groups of individual investors to take collective action, which can lead to significant market movements. Understanding this dynamic is crucial for grasping how social media can affect stock market volatility.

**Sentiment Analysis and Predictive Analytics** Social media provides a vast amount of data that can be analyzed to gauge investor sentiment, offering insights that can be used for predictive analytics. By studying the correlation between social media sentiment and stock market movements, researchers and investors can develop strategies that may predict future market trends.

**Regulatory and Ethical Considerations** The study of social media's impact on stock market volatility also brings to light various regulatory and

ethical considerations. It raises questions about the need for new regulations to address the challenges posed by the digital age and how to protect investors from potential misinformation and manipulation. In conclusion, the rationale for studying the impact of social media on stock market volatility is multifaceted, encompassing the need to understand the implications of rapid information dissemination, the role of social media in market efficiency or distortion, the democratization of information, the growing influence of retail investors, the potential for sentiment analysis, and the pressing regulatory and ethical considerations. As social media continues to evolve, its impact on financial markets will likely remain a critical area of research.

### **1.5 Focus of the Study**

The study of the impact of social media on stock market volatility typically focuses on several areas. Sentiment analysis researchers analyze the sentiment of social media posts, news articles, and tweets to understand the overall mood and opinions of the public and investors. Positive or negative sentiment can significantly influence stock prices. Information Diffusion. This examines how information spreads through social networks and how quickly it reaches investors. Faster dissemination of news can lead to quicker reactions in the stock market, potentially increasing volatility. Market Reactions Studies often look at how specific social media events, such as viral news or influential tweets from prominent figures (e.g., CEOs, financial analysts), correlate with stock price movements and trading volumes. Investor Behavior Researchers investigate how social media influences investor behavior, including decision-making processes, herd behavior, and the formation of bubbles. Social media can amplify trends and lead to overreactions in the market. Algorithmic trading the role of algorithmic and high-frequency trading, which often relies on real-time data from social media, is another area of focus. Algorithms can rapidly process and react to social media sentiment, affecting stock prices and volatility. market efficiency The impact of social media on market efficiency is also studied. Researchers explore whether social media helps in disseminating information more efficiently or whether it leads to noise and misinformation, affecting market stability. Case Studies and Events Specific case studies of events where social media had a significant impact on stock prices (e.g., the GameStop short squeeze) are analyzed to understand the mechanisms and outcomes of such phenomena.

By examining these areas, researchers aim to understand the complex relationship between social media activity and stock market behavior, providing insights into how modern communication technologies influence financial markets.

### **1.6 Limitations of the study**

This research studies is done to solve the particular research problem. It requires various kinds of data, material and other relevant information, which may not sufficient to the researcher. This study cannot escape from the frame of limitations. Some limitations of the study are given below;

1. In this tough competition, there can be other factors beside the financial factor which effects the overall position of the stock market, but all factors are not consider inthis research because of limited time.
2. This study will be based on primary data and information by review of relevant literatures. Thus it may bias to some extent.
3. The focus of study is a stock market operating in Kathmandu only.
4. In this study, only selected financial and statistical tools and techniques are used.
5. Lack of research experiences is appears as one of the most limitation during study.

### **1.7 Organization of the Study**

The whole study is divided into five main chapters. They are as follows:

#### **Chapter - I: Introduction**

It comprises the study's general context, the organization's introduction, a problem description, the study's aims, its importance, and its limits.

#### **Chapter-II Review Literature**

review of relevant works, including books, dissertations, journal articles, pamphlets, reports, and magazines, among others.

#### **Chapter-III: Research Methodology**

The research methodology to be used in order to meet the study's goals. It is made up of the following: research design; sample and population; data sources; data gathering process; techniques and instruments for data processing;

#### **Chapter - IV: Presentation and Analysis of Data**

This chapter is the most significant and is essential to the study. Data presentation, analysis, and interpretation are covered in this chapter. Several statistical and accounting

methods and instruments have been used to evaluate and interpret these gathered data. Major study findings are also included.

### **Chapter - III: Summary, Conclusion and Recommendations**

Additionally, it offers interested parties some helpful suggestions and recommendations. The study begins with the presentation of the table of contents, suggestion sheet, viva voce sheet, acknowledgement, list of tables, and abbreviations. The study concludes with the presentation of the bibliography, questionnaire, and research proposal.

## **CHAPTER-II**

### **LITERATURE REVIEW**

This chapter acknowledges the relevance of the various literatures on the effects of social media on the stock market of firms in the NEPSE. The first part of the chapter presents the review of theoretical literature, followed by social media on discussion, and past studies on and stock market volatility. The fourth part focuses on the critical review of major issues followed by the summary and gaps to be filled by the study. Lastly, the chapter presents the conceptual framework of the study.

#### **2.1 Theoretical Review**

The theoretical review in this chapter aims to provide a comprehensive overview of the existing literature and theories relevant to the study of impact of social media on stock market. This review is crucial for establishing the theoretical foundations of the study and for situating it within the broader context of social media on stock market.

##### **2.1.1 Specialized social media on financial markets**

Rose was the first academic to suggest that rumors have an effect on the stock market. He discovered that rumors may have a short-term effect on stock values, causing investors to buy and sell, by carefully examining samples gathered over a two-year period. Subsequently, there has been a growing number of research investigating the impact of social media on the stock market. Diefenbaker specifically conducted a systematic search for every unverified report that surfaced in the market Rumors section of the Wall Street Journal. According to Davies and Canes' analysis of the Wall Street Journal's "Market Rumors" section, good rumors raise stock values while negative rumors lower them. Pound et al. discovered through newspaper and magazine articles that there was arbitrage activity prior to the announcement of corporate mergers and acquisitions, and that these rumors had little effect on market volatility. Through media reports, Huth et al. (2001) discovered that rumors have a greater influence on large-scale businesses. Barber et al. manually go through Business Week's "rumors" section to filter rumors. By gathering information from the media, Kiyamaz et al. (2011) detected rumors by examining stock market rumors in the Turkish media one by one. They discovered that rumors in the categories of "earnings" and "foreign takeover" had a greater influence on stock market

volatility. By carefully choosing rumor posts to be considered rumor occurrences, Clarkson et al. examined the connection between rumors and anomalous returns. Spiegel and colleagues conducted a manual selection of rumors from Israeli Internet forums, concluding that the reports corroborated the notable anomalous returns in the stock market during the first five days. Zhao et al. used publicly available, inaccurate information that was explained by listed firms and publicly released in official media as their study sample. However, the majority of studies mostly relied on labor-intensive, biased human manual rumor identification. Using machine learning techniques, some academics have gone one step further in their ability to recognize rumors. Li, for instance, studied network rumor recognition using Naive Bayes classification. Liu conducted research on machine learning-based microblog rumor detection system.

This study implements a machine learning approach to detect stock market rumors from social media. Based on the findings, we examine the sentiment polarity, timing, sector, inter-industry, and other performance features of social media rumors in the Chinese stock market.

## **2.1.2 Predicting Stock Markets Using Big Data**

### **2.1.2.1 Social Media Data**

Up to 30% of the variation in daily prices can be explained by news on the state of the economy as a whole (Evans & Lyons, 2008). Yu (2013) looked into the relationship between short-term firm stock market performances and traditional media, such as major newspapers, television broadcasting firms, and business magazines, as well as social media, such as Twitter, blogs, and forums. According to their findings, compared to traditional media sources, social media shows a stronger correlation with firm stock performance. The newest area of study is market prediction, which is based on the integration of machine learning, behavioral economics, and natural language processing (Khadjeh Nassirtoussi et al, 2014). By utilizing computational linguistics techniques to interpret positive news and forecast market returns and volatility for the next day, the information content on Internet stock message boards was successfully studied (Antweiler & Frank, 2004). The prediction model's accuracy increased to 60% when the decision tree (DT) and support vector machine (SVM) models were coupled.

Furthermore, the advancement of information technology has made the internet a crucial source of information for people. Since search engine technology has grown in importance as a means of information acquisition, the network search index can, in part, reflect shifts in people's interests. Google is the search engine with the largest absolute market share in the US. The Financial and Economic Attitudes Revealed by Search (FEARS) index was created by the finance industry based on the volume of daily internet searches and integrated search data related to public concerns (such as economic recession, unemployment, and bankruptcy). This index is able to accurately reflect investor sentiment and successfully predict short-term return reversals (Da, 2011). According to the research, the performance of the prediction indicators based on network search data was shown to be much better than that of the prediction indicators based on Google Trends when compared to those based on traditional research (Vosen & Schmidt, 2011). The authors went on to say that search data will aid the government in making economic decisions because it has the ability to forecast future economic activity.

### **2.1.2.2 Text Data and Text Mining**

Many different fields employ text mining extensively. Text clustering, text categorization, sentiment analysis, information extraction, and other activities are among the several subfields and tasks that make up text mining. Its goal is to transform computer-understandable unstructured data into computer-understandable structured data. As technology advances, an increasing number of academics are using text data in their studies.

Zhai (2007) showed that it is possible to create a thorough investor sentiment index by combining social media reviews, financial news, and historical price data. It is possible to analyze both quantitative and qualitative data from financial reports using data mining techniques (Kloptchenko, 2004). The outcome demonstrated how well text clustering predicts technology businesses. In 2015, Ravi conducted a comprehensive summary of 161 papers and examined the purposes, methods, and techniques of sentiment analysis. There is a Sentiment-PLSA model to forecast product sales performance and an ARSA model to predict movie data set by analyzing the technique of evaluating public attitudes and opinions from weblogs (Liu, 2007). The outcome demonstrated how very successful both strategies were. Many academics keep an eye out for financial market fraud using text data. Based on yearly data, Shirata and colleagues (2011) employed bankruptcy

prediction models to forecast Japanese company insolvency. The 180 companies' worth of data, 90 of which were operating profitably and 90 of which were in bankruptcy, were applied by the writers between 1999 and 2005. They used a Classification and Regression tree model (CART) to extract particular keywords in order to make predictions.

Some researchers generated a dictionary from the Management Discussion and Analysis Sections (MD&A) of 10-Ks using the automated text analysis method (Cecchini et al, 2010). The outcomes of the predictions for fraud reached 81.97%, and the results for bankruptcy reached 83.87%.

### **2.3 Efficient Market Hypothesis (EMH):**

**Information Efficiency:** The Efficient Market Hypothesis suggests that financial markets incorporate all available information into asset prices. Social media's role in rapidly disseminating information challenges the semi-strong form of EMH, as new information may be quickly reflected in stock prices, leading to increased volatility (Shiller, 2015).

#### **2.3.1 Behavioral Finance**

**Herding Behavior** Social media can amplify herding behavior among investors, as individuals may follow the crowd based on information, recommendations, or sentiments expressed online. This collective decision-making can lead to exaggerated market movements and heightened volatility. **Overreaction and Underreaction:** Social media may contribute to behavioral biases, such as overreaction or underreaction to news and events. Rapid dissemination of information can lead to exaggerated market responses, creating opportunities for short-term traders and contributing to volatility. Behavioral finance is a field of study that combines principles of psychology with economics to understand how individuals make financial decisions. It explores the ways in which cognitive biases, emotions, and social influences affect investor behavior and market outcomes. One prominent definition of behavioral finance is provided by Richard H. Thaler, a pioneer in the field, in his book "Advances in Behavioral Finance" (1993).

Thaler defines behavioral finance as follows: "Behavioral finance is the study of how psychology affects financial decision making and financial markets. It is increasingly becoming the common way of understanding investor behavior and market anomalies, and is a key component of modern finance." This definition captures the essence of

behavioral finance by highlighting its focus on the psychological aspects of decision-making in finance and its relevance in understanding market dynamics Thaler, R. H. (Ed.). (1993). *Advances in Behavioral Finance* (Vol. 2). Princeton University Press.

### **2.3.2 Information Cascades**

**Social Influence and Cascading Effects:** Information cascades occur when individuals base their decisions on the actions of others rather than on private information. Social media, by facilitating rapid information transmission and amplifying collective opinions, can contribute to the formation of information cascades that impact stock prices and market volatility. Information cascades refer to a phenomenon in which individuals follow the actions or decisions of others rather than their own information or preferences, leading to the amplification of popular choices and the suppression of minority opinions. These cascades can occur when people observe the behavior of others and infer information from it, regardless of the accuracy or reliability of that information. A well-known definition of information cascades is provided by Bikhchandani, Hirshleifer, and Welch in their paper "A Theory of Fads, Fashion, Custom, and Cultural Change as Informational Cascades" published in *The Journal of Political Economy* in 1992. They define information cascades as follows:

An information cascade arises when it is optimal for an individual, having observed the actions of those ahead of him, to follow the behavior of the preceding individual without regard to his own information. Thus, if one person is behaving inappropriately, others may follow suit, assuming that the collective behavior must be based on superior information." This definition highlights how individuals may disregard their private information and instead rely on the actions of others due to the belief that the collective behavior reflects superior information. Bikhchandani, S., Hirshleifer, D., & Welch, I. (1992).

### **2.3.3 Sentiment Analysis and Investor Psychology**

**Emotional Contagion:** Social media platforms are a breeding ground for emotional contagion, where users' emotions spread rapidly through the online community. The emotional state of investors, as expressed on social media, can influence market sentiment and contribute to fluctuations in stock prices.

**Attention and Availability Heuristics:** Social media can affect investor decision-making through attention and availability heuristics. Stocks or market trends that receive significant attention on social platforms may be more readily available in investors' minds, influencing their trading decisions and contributing to volatility.

#### **a) Market Microstructure Theory**

Market microstructure theory is a branch of financial economics that focuses on the structure, dynamics, and behavior of financial markets at a granular level, particularly examining how trading mechanisms, market organization, and the interactions between market participants affect price formation, liquidity provision, and market efficiency. At its core, market microstructure theory delves into the intricacies of how trading occurs within markets, including the role of different types of market participants such as investors, traders, market makers, and institutions, as well as the impact of trading strategies, order types, and information dissemination mechanisms. This theory seeks to explain various phenomena observed in financial markets, including price volatility, bid-ask spreads, order flow dynamics, market liquidity, price discovery processes, market manipulation, and the impact of regulatory changes.

**Algorithmic Trading and Liquidity Dynamics:** Social media data is increasingly used in algorithmic trading strategies. Algorithms that incorporate sentiment analysis and social media data may trigger rapid and large-scale trading actions, affecting market liquidity and contributing to short-term volatility.

**Flash Crashes and Fragility:** The integration of social media-driven algorithms with high-frequency trading systems can lead to sudden and extreme market movements, contributing to flash crashes. This intersection of social media and market microstructure dynamics can create a more fragile and prone-to-volatility market environment.

#### **b) Network Theory**

Network theory is a field of study that examines the structure, behavior, and dynamics of complex systems composed of interconnected components or nodes. These systems can represent a wide range of phenomena, including social networks, biological networks (such as neural networks or metabolic pathways), communication networks, and more.

**Influence Networks:** Social media platforms form complex networks where information and opinions circulate. Network theory helps understand how influential individuals or nodes within these networks can shape market sentiment and contribute to the propagation of information, influencing stock prices and volatility.

**Information Cascades in Networks:** The structure of social networks can facilitate the spread of information and the formation of cascades. Identifying influential nodes and understanding network dynamics is crucial for predicting and explaining the impact of social media on market volatility.

### **c) Information Dissemination**

**Acceleration of Information Flow:** Social media platforms enable rapid dissemination of information. Financial news, rumors, and opinions can spread quickly, influencing investor sentiment and decision-making.

**Amplification of Market News:** Positive or negative news can be magnified on social media, leading to increased market reactions. This amplification effect may contribute to heightened volatility.

### **d) Sentiment Analysis**

**Emotional Impact:** Social media platforms are rich sources of sentiment data. The emotions expressed by users can provide insights into market sentiment, affecting trading decisions and contributing to market volatility.

**Algorithmic Trading:** Sentiment analysis tools and algorithms process social media data to gauge market sentiment. The integration of such tools into trading strategies may lead to rapid and automated reactions to online sentiment, influencing market dynamics.

### **e) Herding Behavior**

**FOMO (Fear of Missing Out) and FOLM (Fear of Losing Money)** Social media can drive herding behavior as investors react to trending topics, recommendations, or news. This collective behavior can amplify market movements and contribute to increased volatility.

**Crowd sourced Investment Strategies:** Online communities may develop consensus views on specific stocks or market trends. The adoption of these crowdsourced strategies can lead to synchronized trading actions, impacting market volatility.

**f) Market Manipulation and Fake News**

False Information Spread Social media can be a source of misinformation and rumors. Deliberate attempts to manipulate stock prices through fake news or coordinated efforts can lead to sudden and significant market movements.

Regulatory Challenges: Authorities face challenges in monitoring and regulating the spread of false information on social media platforms, which can contribute to increased market uncertainty and volatility.

**g) Feedback Loop with Traditional Media:**

Integration with Traditional News Outlets: Social media often influences traditional financial media. News picked up on social platforms may be further propagated through mainstream media, creating a feedback loop that intensifies the impact on market volatility.

Reinforcement of Market Narratives: Social media can shape and reinforce market narratives, affecting investor behavior and contributing to the persistence of trends or abrupt reversals.

**h) Monitoring and Predictive Analytics:**

Big Data Analytics: The vast amount of data generated on social media platforms provides opportunities for sophisticated analytics. Predictive models based on social media sentiment and other indicators aim to anticipate market movements, potentially influencing trading decisions and volatility.

**2.4 Investor Sentiment**

Conventional finance theory assumes that people are rational and want to maximize their interests throughout their lives. It is based on the efficient market premise. Nevertheless, this concept finds it difficult to explain some non-rational market actions. Schöbel shows that decision-makers in real-world situations are influenced by a multitude of factors, which helps to explain a wide range of market oddities. Additionally, when making investing decisions, illogical considerations take center stage. There are a lot of research findings in the relevant field since investor mood in the stock market plays a significant role in determining stock volatility.

Three mechanisms have been identified by Mehra and Sah (2002) for how investor sentiment influences stock price in the arbitrage market: (1) systematic fluctuations in investor sentiment; (2) investors' moods influence how they assess risk during the decision-making process; and (3) investors' belief that decisions are made based on their objective judgment, thereby ignoring the subjective impact of mood fluctuations. Based on pertinent research, Baker and Wurgler (2003) chose the dividend premium, average return rate from the first day of the IPO, closed-end fund discount rate, and other variables for a principal component analysis. Eventually, they discovered that the stock return could be explained by the artificial investor emotion.

According to Wysocki's (1999) analysis of the 50 businesses that received the most mentions in Yahoo Finance posts, the quantity of posts was a reliable indicator of the volume of stock trading and excess returns for the following trading day. The statistical relationship between the abnormal trading volume and abnormal returns and the abnormal posting volume and content tendency of the Raging Bull stock platform was examined by Tumarkin and Whitelaw (2001). Antweiler and Frank (2004) discovered that they could forecast the changes in the Dow Jones Index by creating optimistic, flat, and bearish investor sentiment indices from the posts on Yahoo Finance. In order to create an investor sentiment index, Das and Chen (2007) used a semantic analysis method to extract the opinions of small and medium-sized investors from a financial social media platform. They discovered a correlation between the index and stock market prices. Website news affects the stock market in addition to social media platforms. For instance, Liang (2005) discovered a correlation between the return rate, price fluctuation, and trading volume of relevant stocks and the quantity and content of stock news on Yahoo Finance, Raging Bull, and SmartMoney.

But the majority of these studies—especially the professional ones—were carried out on one or more platforms. Social media platforms that reflect the opinions of a wider range of investors have become the focus of recent financial studies instead of individual websites. Studies conducted on Twitter have revealed that the return rate of a stock in the investing sector can be predicted by its index of collective sentiment tendency among Twitter users (Sprenger et al., 2013; Bartov et al., 2015). This correlation is more pronounced for smaller sized stocks or enterprises. Furthermore, pertinent research started to establish a macro-level correlation between the emotion on Twitter and the entire stock

market. The study discovered that, with an accuracy of 87.6%, the collective sentiment tendency indicator on Twitter could forecast the movement of the Dow Jones indicator the following trading day (Bollen et al., 2011). Moreover, Zhang et al. (2011) found a strong correlation between changes in Twitter sentiment and stock market trading volume swings. More crucially, there was a substantial correlation found between the frequency of 26 financial words in the preceding one or two days and the overall return rate of the US stock after-market (Mao et al., 2011). This indicates that sentiment among investors on Twitter, particularly with regard to keywords, influences the stock market.

## **2.5 The Effect of Investor Sentiment on Stock Volatility**

Numerous academics have shown a strong correlation between investor sentiment and the stock market. Sayim and Rahman (2015) investigated the trading sentiment of Turkish investors and the Turkish ISE index. Using an impulse response function and VAR model, they discovered that unexpected shifts in the sentiment of both rational and irrational investors had a major effect on the volatility of returns and the ISE returns. Liston Perez. In order to determine whether investor sentiment in Iran has a different effect on stocks of different sizes in terms of returns and their volatility, Huerta et al. (2016) divided stocks into different portfolios based on large and small size and used the GARCH model. The results indicate that small-sized stocks are more affected by investor sentiment. The investor sentiment indicator's long-term trend term and stochastic disturbance term are separated out by Guo (2017). Guo eventually discovered that the long-term period trend term, which represents fundamental optimism, and the stochastic disturbance term, which represents speculators' sentiment, enhance the leverage and anti-leverage effects of stock return volatility, respectively. This was accomplished by building an asymmetric model of volatility.

Zhang (2011) discovered that a volatility leading indicator that performs better in bull markets than in bear ones is the sentiment factor generated by their TVP-VAR model. Second, they discover that the sentiment index has a bigger influence on the Chinese stock market than the American stock market when stock market volatility is high. According to Chen (2016), there are differences between the effects of optimistic and pessimistic investor sentiment on stock volatility, although both cause stock volatility to rise. They also discover that the impact of investor sentiment on stock volatility is mitigated by financing and financing securities. Research by Sprenger (2013)

demonstrated that there is a unidirectional relationship between noisy trading and stock market volatility, with increased stock market volatility being caused by more noisy traders.

The sentiment index applicable to the dry Indian market was constructed by Kumari et al. (2015) using ten overall market-related sentiment proxies. The impact of investor sentiment on stock market volatility was found to be significant, and there was a positive or negative relationship between investor sentiment and past investment returns and investor sentiment. The VAR-GARCH and model were used to analyze the data. Liu (2007) employed the MARCH-MIDAS model to examine investor sentiment at three distinct frequencies: monthly, weekly, and daily. The results indicated that mixed-frequency sentiment significantly affects the long-term volatility of stock returns.

## **2.2 Review of Related Studies**

### **2.2.1 Review of International Articles**

An empirical review is a methodical and thorough analysis of previous research studies, information, or proof pertaining to a specific subject or research question. Empirical evidence in this sense is evidence derived from experimentation, observation, or actual data. In an empirical review, empirical research, data sets, or other concrete evidence are combined and analyzed in order to make inferences, spot trends, or advance knowledge about a certain topic. It is an essential part of academic research that aids in expanding on previously held ideas, evaluating the state of the topic, and developing well-informed hypotheses for more study.

The core premise of using investor sentiment to anticipate stock prices, stock market returns, and liquidity is that there is a synergy between stock prices and investor emotion, according to Qing-Liu et al.'s paper from 2023 titled "Synergy between stock prices and investor sentiment in social media." Nonetheless, there hasn't been much discussion of this synergistic interaction in the literature. Using natural language processing techniques and social media communications from stock market participants, this article examines the synergistic relationship between company prices and investor sentiment. We find a highly significant positive synergy between stock prices and investor mood at the macro level. In other words, investor sentiment increases in response to rising stock prices, and decreases in response to falling stock prices. But over a certain amount of time, this

synergy could be reversed or even erased. We also discover that investor sentiment on social media is forward-looking through a segmented analysis of the synergy between stock prices and sentiment over the course of a day. Theoretically, this supports the use of investor sentiment to forecast stock prices. Using causal inference machine learning, we also investigate the impact of lockdowns—the worst reaction to COVID-19—on the relationship between stock prices and investor mood. According to our data, there is a considerable relationship between stock prices and investor sentiment and external anxiety. However, this relationship might be good or negative. This study presents a novel viewpoint on behavioral finance, investor sentiment, stock price forecasting, and the effects of COVID-19 on the stock markets.

According to Patra et al. (2022), in their paper "Impact of Social Media on Stock Market - A Study on Odisha State," social media's role and impact have become increasingly crucial in a variety of fields and industries globally, owing to today's technologically advanced society. One of these domains / sectors is the effect of social media on global and Indian stock markets. The number of people using social media and the proportion of users who are interested in the stock market can be used to gauge the impact of social media. The popularity of social media is driven by the rising prevalence of internet usage. One of the most significant forms of communication that connects everyone in India and throughout the world is social media. These days, investors and the stock market are not limited by national borders. We may now claim that there is a stock market and that the entire world is a market. Only when the majority of people on the planet utilize and develop technology will it be feasible. Numerous academics, researchers, and scholars have studied the effects of social media on the stock market in India and around the world extensively. However, no noteworthy research has been done about social media's effect on the Odisha stock market. This is an attempt to investigate how social media affects Odisha's potential investors as well as the Indian stock market. Both primary and secondary data were used in the current investigation. A precise questionnaire created with this particular goal in mind was used to gather the primary data. A well-thought-out plan was used to gather the secondary data, which came from a variety of credible websites, e-journals, e-magazines, and e-annual reports of businesses. For analysis and result interpretation, a variety of statistical tools, such as percentage computations, correlation, and chi-square tests, are employed. The current study came to the conclusion that social media plays a significant role and affects the stock market. In the current state

of the market, social media is also assisting investors and the stock market with their trading.

The relationship between investor sentiment and certain economic, social, or political consequences illustrates how sociology, economics, and political science come together as interrelated academic fields. The rapid development of the Internet has greatly increased investor sentiment's ability to have a considerable impact on social and economic dynamics. Specifically, the rise of social media sites like Twitter and Stock Twits has made it possible for information to travel from virtual space into the real world faster and more thoroughly. Using large data from Stock Twits, this study examines whether online investor mood influences the real-world stock market. This study investigates the relationship between stock market activity and investor sentiment as measured by social media platforms, since both are highly significant in today's world. I carried out an integrated study of market and social media data by creating a time series model. The following are the study's findings. First, the Granger causality test has demonstrated that stock market volatility is preceded by investor sentiment over the six trading days prior, suggesting a strong trailing and unidirectional causal relationship between investor sentiment and stock price changes. Second, investor sentiment toward companies in various industries is either favorably or negatively correlated with stock market volatility, according to the results of the vector auto regression model.

The primary goal of Ismail et al.'s (2018) research, "Impact of online social media on investment decision in Malaysia," was to examine how investors make decisions about their investments in Malaysia. The study concentrated on various effects that online social media has on these decisions. Furthermore, all of the hypotheses that were put forth and for which the P-value and significance value were less than 0.05 were supported by the results. As a result, it shown that the independent variables significantly impacted the dependent variable, the choice to make an investment.

In their research, Mistri et al. (2020) examined the role of social media in investment decisions, specifically focusing on changes in investment patterns following the increased role of social media. The study was titled "Analyzing the role of social media in investment decision with special reference to South Gujarat." Furthermore, the result

disproved the null hypothesis. Therefore, it can be said that there is a substantial correlation between respondents' gender and how frequently they use social media.

In Al-Atoom et al.'s study titled "The Effect of Social Media on Making Investment Decisions for Investors in Amman Financial Market," researchers looked at how social media affected investors' decision-making in the market. They did this by reviewing the most significant economic and financial data and information that can be disseminated through new media, identifying the most significant and influential new media that affected investors' decisions in the market, and determining the influence of new media on investors' decision-making in the market. Additionally, the investigation produced a number of findings, the most significant of which are:

- In order to acquire economic and financial information and data that aids in the process of making and justifying their investment decisions, investors in the Amman Financial Market utilize social media with 60% of them and specialist websites with 40% of them.
- Specialized websites and social media, as representations of new media applications and forms, have a statistically significant impact on the rationalization and decision-making process related to investments.

The goal of Rani et al. (2017)'s study, "Social media influence on the investment decisions among the youth adults in India," was to determine the extent to which social media had an impact on the decisions young adults made about their investments, as well as the most popular option. Additionally, the study sought to understand the role that social media played in helping young investors understand conceptual details and determine whether the social media content that was readily available on the subject of financial investments was advantageous or disadvantageous. Furthermore, the data analysis reveals that 92.4% of the participants have encountered financial investment content on social media platforms. Of these, 32% were motivated to acquire further knowledge on the subject, and 10% were directly persuaded to invest based on the recommended investment option as presented by the social media creator. Approximately 57% of those surveyed say that people's investing decisions are influenced by the buzz generated by social media.

The goal of Abu-Taleb's (2021) research was to investigate social media and determine whether it influences investment decisions. The study was titled "Impact of social media on investment decision a quantitative study which considers information online, online community behavior, and firm image." The study's initial goal was to determine whether online social media and investor decision-making are related. It then looked into the variables that influence investors' decisions and choices when it comes to investing. The study also sought to advance our understanding of behavioral finance. These three independent factors have a positive correlation with the dependent variable (investment choice), and the results also showed a relationship between social media and investment decision. Stated differently, the study's findings have demonstrated that social media does influence investing choices.

The goal of Singh (2016)'s research, "A Study on the Factors Influencing Investors Decision in Investing in Equity Shares in Jaipur and Moradabad with Special Reference to Gender," was to determine the factors that influence investors and encourage them to purchase shares. Additionally, they discovered that although female investors seek for additional securities to invest in, male investors reviewed daily reports and their present financial situation and both invested in high-rate paying stocks. They also both accepted recommendations from reputable and trustworthy stock brokers.

The goal of Miasee et al.'s (2014) research, "Fundamentals Knowledge of Investor and Its Influence on Investment in Capital Market-A Study from Dhaka Stock Exchange," was to gauge the basic level of financial literacy and how it affected DSE stock market participants. Additionally, they looked at all of the DSE investors between 2010 and 2014 and discovered that the majority of them lacked a financial advisor, desired a big return in the near future, and took unnecessary risks.

### **2.2.2 Review of Thesis**

Rabindra, (2022) Social Media's Effect on the Stock Market: In today's technologically advanced society, social media plays a diverse role and has a substantial impact across a wide range of fields and sectors globally. Social media's effect on global stock markets is one of these domains or industries. The number of people using social media and the proportion of users who are interested in the stock market can be used to gauge the impact of social media. The popularity of social media is driven by the rising prevalence of

internet usage. One of the most significant forms of communication that connects everyone in India and throughout the world is social media. These days, investors and the stock market are not limited by national borders. We may now say that there is a stock market and a market everywhere. Only when the majority of people on the planet utilize and develop technology will it be feasible. Numerous academics, researchers, and scholars have studied the effects of social media on the stock market in India and around the world extensively. However, no noteworthy research has been done about social media's effect on the Odisha stock market. This is an attempt to investigate how social media affects Odisha's potential investors as well as the Indian stock market. Both primary and secondary data were used in the current investigation. A precise questionnaire created with this particular goal in mind was used to gather the primary data. The secondary data were gathered using a carefully thought-out approach, and they came from a variety of credible websites, e-journals, e-magazines, and e-annual reports of businesses. Several statistical procedures, such as chi-square tests, correlation, and % agecal calculations, are utilized to analyze and interpret data. The current investigation came to the conclusion that social media plays a crucial influence in the stock market. In the current state of the market, social media is also assisting investors and the stock market with their trading.

Kumar (2021) discusses the effect of social media on stock market performance, albeit there is a dearth of data from emerging economies to support this claim. These days, a large number of international banks and other financial giants from industrialized nations are growing their operations into emerging economies, which are renowned for their quick development. Businesses in industrialized nations tend to communicate with their stakeholders using social media. This could be difficult because the infrastructure and stock market development of emerging nations differ greatly from those of mature markets. Over a 15-month period, this study analyzes the sentiment of tweets regarding Indian companies included in the Nifty 50 or any sectoral index. The outcomes of the Granger-causalty tests show a significant correlation between the sentiments expressed on Twitter and the indices pertaining to the Indian stock markets' banking and financial industries. The Impulse Response Function results show that the negative feelings have a longer lasting effect on index returns than the positive sentiments. This study will assist businesses in making good use of social media in the current environment for information sharing and distribution.

Sharma (2020), "Impact of social media and stock market investment." Finance has been studied for a number of years, but behavioral finance—the study of how psychological factors can affect market outcomes—is still relatively new and has a lot of uncharted territory.

Numerous research have examined this topic as social media, which has grown quickly and is now an essential component of daily life, is acknowledged as being important for forecasting future events. In spite of this, little research has been done on the impact of social media material on other time-dependent real-world occurrences. This study investigates the area of behavioural finance in addition to addressing that worry.

With a focus on the Swedish stock market, the study intends to investigate how social media influences investing decisions. The study employs a quantitative methodology, and data is gathered via Google Forms-designed questionnaires. Microsoft Excel software is then used for analysis.

We will divide this field into three aspects, each of which will be evaluated, in order to better understand how social media affects investment decisions, as well as the components of online social media and the level of their involvement.

We will look at three aspects of social media: company image, online community behavior, and social media information.

The results of this study demonstrated a positive correlation between the dependent variable (investment choice) and these three independent factors, as well as a relationship between social media and investment decision. Stated differently, the study's findings have demonstrated that social media does influence investing choices.

The purpose of this study is to add to the body of knowledge for upcoming financial studies on a pertinent subject that looks at how social networks affect capital market activity.

Impact of social media strategies on stock price: Twitter case study by Naresh (2018)  
Objective: Social media has emerged as a key strategic marketing tool for boosting

company value in recent years. This study attempts to investigate the market response at the time of the establishment of a Twitter platform for 312 firms from the Fortune 500 firms, based on an integrated theoretical framework.

#### Design, procedure, and strategy

Event history analysis (EHA), often referred to as event research, was used to test the hypotheses regarding the impact of social media platforms on firm value. EHA is typically used to investigate the effects of historical phenomena for US Fortune 500 corporations that have built a Twitter platform.

#### Findings

For the subsample of companies free of any other corporate announcements, a notable market reaction was observed around the commencement of Twitter operations; however, this was not the case for the entire sample. For businesses that use two-way communication tactics as opposed to one-way communications, the market response is greater in both the uncontaminated subsample and the total sample. Smaller businesses, businesses with losses, and businesses with a family or a dominant shareholder have greater rates of it. Moreover, businesses in the tainted subsample are probably going to use a two-pronged approach following an improvement in their earnings per share. These results stand up after multiple robustness tests, including cross-validation on a holdout sample.

#### Research limitations/implications

The integrated theoretical framework constitutes a noteworthy addition. As far as we are aware, this is the first cross-disciplinary study that combines the impression management theory (IMT), signaling theory (ST), social exchange theory (SET), social representation theory (SRT), social network analysis (SNA), social identity theory (SIT), and social network analysis (SNA) into a single framework centered around social interaction and information as a resource.

#### Practical implications

The findings imply that Twitter might be a valuable tool if businesses engage and return the favor with different stakeholders.

#### Social ramifications

Businesses that use social media need to communicate with all of the stakeholders and respond in kind.

#### Uniqueness and worth

This study differs from other published research on the subject since it looks at how the launch of a particular social media platform affects stock prices. Twitter. The paper's current findings support earlier database marketing research and demonstrate that marketing "with" rather than "to" customers adds greater value. The use of the internet broadens the definition of database marketing to include "face-to-face" interaction marketing in the connections between the business and its clients. Lastly, the circumstances in which interactive social media platforms are employed are shown. This indicates that companies are more inclined to employ a two-way interactive strategy after experiencing a positive momentum for a year.

## **2.6 Research Gap**

The goal of this study is to gather information, thoughts, and suggestions related to the stock market and to draw conclusions about what new can be contributed. Since they served as the basis for the current study, the earlier research in this area cannot be disregarded. Put differently, research needs to be ongoing. By connecting the current study with earlier research investigations, the continuity of the research is guaranteed. The company's financial health depends on the different funding decisions made. One of the most important considerations to be made is how social media affects stock market decisions.

Numerous research projects have been undertaken in Nepal. It is therefore imperative to confirm the continued validity of their findings. The financial landscape of Nepal has seen numerous changes. The majority of research projects involve analyzing primary data; this study aims to create an opinion poll among financial executives from several Nepalese stock exchanges. Furthermore, the earlier research on the stock market ages and needs to be updated and verified. Furthermore, no research has been conducted on the identical stock, time span, or components. As a result, the goal of this research is to evaluate the overall performance of a chosen stock market for the year 2023. Thus, the goal of this study is to determine how closely social media and Nepal's stock market are related. Additionally, it will suggest a few key actions for the indicators to concentrate on in order to achieve high relevance in the stock market.

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

In order to achieve its goal, the study attempts to offer the general framework or plan for the data gathering, analysis, and presentation. The information regarding the research technique is provided in this part. based on the methodology that will make it possible to quantify and analyze the study's variables in the research chapter that follows.

#### **3.1 Research Design**

A conceptual framework used to conduct research is known as the research design. A plan for data gathering and analysis is called a research design. It is a deliberate plan of action that is suggested to be completed sequentially while conducting research. The researcher can monitor his progress and determine whether he is heading in the right way to accomplish his goal with the aid of study design. This study's research design is more descriptive, utilizing a variety of phenomena that are connected to and impact the stock market and social media. Primary data and information are gathered for this purpose from several trustworthy sources. This study's primary goal is to assess and compare the performance of particular NEPSE in Nepal. To achieve its goals, the study focused on using a descriptive and informal research design.

#### **3.2 Population and sample**

The purpose of this study is to determine how social media affects the stock market. Thus, as of 2024, there are 75 licensed stock brokers in Nepal NEPSE, which represents the study's population. These NEPSE registered broker houses are separated into business sectors to reflect the homogeneous nature of Nepal; however, the sample of NEPSE used in this study is based on stratified judgment sampling, which accounts for 400 percent of the entire population. Four hundred of the 450 questionnaires that were sent to various institutional investors were returned. Thus, a convenient sample size of 400 people was used, and a set of questionnaires was distributed to the respondents. The convenience sampling technique was employed in the sample selection process. Samples were chosen by visiting various institutional investors, including as broker houses, Employee Provident Funds, and other Kathmandu institutions, in order to ensure that they were

representative. The study involved selecting six to ten samples from each institutional investor.

### **3.3 Nature and Sources of Data**

The entire study is based on primary data that was gathered from Nepali investors. In order to understand the respondents' investment behavior, a specific series of questions was posed to them. Data were gathered from 400 respondents for this study. The study is based on primary data sources, which are utilized to assess social media posts about volatility in the stock market. Primary data sources are gathered via a structured questionnaire. Some users of social media did not feel or demonstrate a duty to share information. Some investors politely share the information in order to demonstrate their interest and acknowledge the context. They also do this in order to obtain additional information. With the relevant authorities, a conversation, in-person interview, observation, and opinion poll were also carried out. However, this study also made use of a number of secondary data sources. In order to accomplish the research goal, the gathered data were first systematically presented in tabular form to determine the identification, condition capacity, and performance of social media. Afterwards, several research tools were applied to examine the data.

### **3.4 Data Processing Procedure**

The instruments for data analysis are used as simply as feasible. It is not possible to use data taken directly from the different primary sources in their original format. In order to facilitate analysis, they must be further confirmed and made simpler. For computation, the data, information, figures, and facts must be verified, verified again, modified, and tabulated. They have been included in insightful Tables that make sense given the data's nature, and these are displayed in the appendices. Similar to how different tables have been constructed in a comprehensible manner, homogeneous data have been sorted into one table, and strange data have been excluded from the table. Financial and stoical technologies have been used in the analysis and interpretation of data. Appendices at the conclusion of the report contain the detailed computations that are not shown in the body of the report.

### 3.5 Method of Data analysis

This study uses both statistical and financial approaches to achieve its goal. A range of financial ratios are employed in both descriptive and analytical market analysis. Furthermore, the data gathered from the yearly reports, social statistical reports, and annual supervision report are analyzed and interpreted using basic mathematical tools. Furthermore, data processing transforms data into knowledge or information. The questionnaire data were in unprocessed form. They were categorized and recorded in the necessary format. Analyzing and interpreting the data taken from the interviewee, public reporting, and questioner is done using basic mathematical techniques. Both descriptive and inferential statistics are used as data analysis techniques in this study. Version 20 of the Statistical Package of Social Sciences (SPSS) and Microsoft Excel were used to analyze the data.

#### Descriptive Analysis

The conventional statistical tools, such as mean, standard deviation, frequency, percentage, etc., are employed in this investigation.

#### Inferential Statistics

##### Correlation

The association between two or more variables is known as correlation. With the use of the correlation coefficient, it is quantified. The correlation coefficient's values fall between -1 and +1. Karl Pearson's correlation coefficient ( $r$ ), which is particularly useful for quantitatively measuring data.

A positive correlation indicates that the link is positively oriented, with one increase occurring in response to the other's increase. A negative correlation, on the other hand, shows the opposite of the above—a rise in one while the other falls.

##### Multiple Linear Regressions

One dependent variable and two or more independent variables define a multiple linear regression model. It may or may not be linear.  $Y = \beta_0 + \beta_1 Y_1 + \beta_2 Y_2 + \dots + \beta_k Y_k + \epsilon$  is the model for multiple linear regressions....

$$Y = \beta_0 + \beta_1 Y_1 + \beta_2 Y_2 + \dots + \beta_k Y_k + \epsilon$$

Where,

Y dependent variable

$\beta_i$ 's unknown parameters

$Y_i$ 's independent variable

$\epsilon$  error term

### **Assumptions**

The Multiple Linear Regression model is based on the following assumptions:

- The parameters of the regression model are linear.
- Errors have a constant variance and zero mean, distributed independently.
- The independent variables do not multicollinearly relate to one another.
- There is no correlation between mistakes and independent variables.
- The model's specifications are accurate.

The important variables from each test individually For multiple linear regression, ing were chosen. Using variance inflation factors (VIFs), the presence of multi-collinearity among the independent variables was examined.

ANOVA's coefficient of determination and F-test were used to assess a model's fit. The plot for normalcy was used to help make the test of the residuals' normalcy.

### **3.6 Reliability and Validity of the Data**

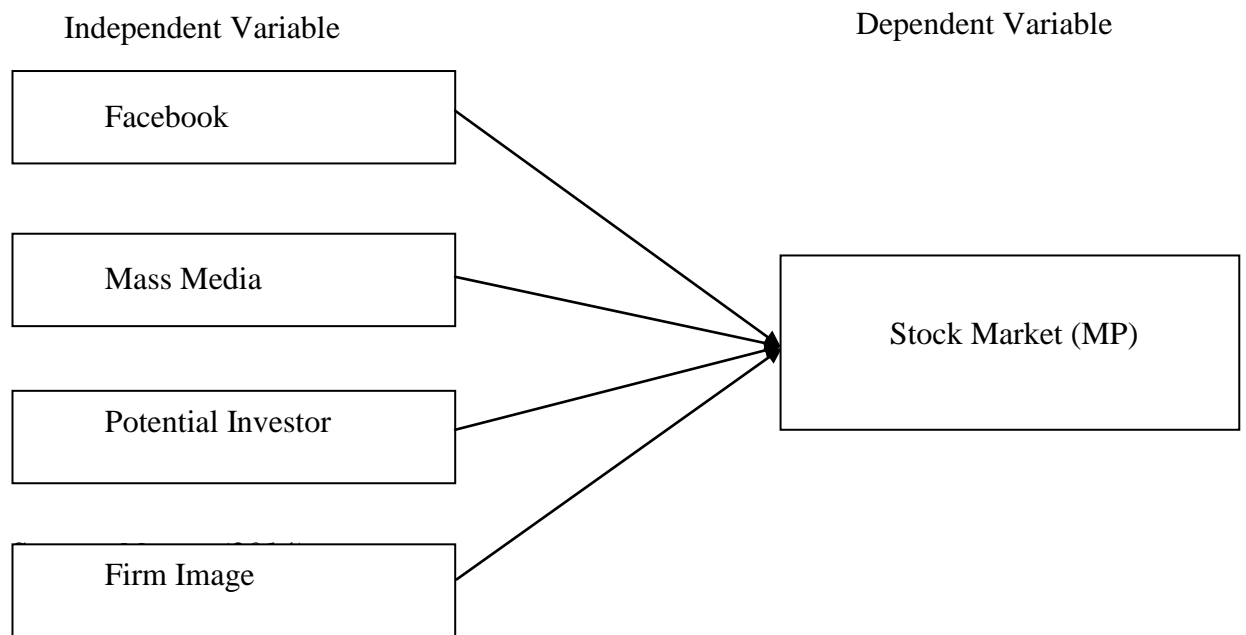
The study's precise objectives were met by gathering data and information from the original source. It strengthens the validity, dependability, and study objectives of the research project. The primary factors influencing the validity and dependability of data are the respondents' age, ability, professionalism, level of interest, and intention. The study attempted to obtain up-to-date information from the legitimate and leading authorities of the enterprises through in-person interviews, observations, and opinion surveys. Questions of the check-and-balance kind were also asked in the survey.

### **3.7 Research Framework**

The relationship between independent and dependent variables is made evident by the theoretical framework.

**Figure 3.1**

*Schematic diagram of social media on stock market effect Framework*



### 3.7.1 Definition of variable

#### a) Facebook

Facebook has become one of the main forces influencing changes in the stock market. Sentiment analysis has shown to be a useful technique for forecasting market movements. It entails examining the positive or negative sentiment expressed in social media posts. Scholars have discovered a robust association between the sentiment conveyed on these platforms and the ensuing performance of the stock market.

#### b) Mass Media

The term "media effect" refers to how specific news or media items have the potential to magnify or affect current price patterns in a given asset class, industry, or market as a whole. If this idea is correct, investors and borrowers will typically be swayed by headlines and react swiftly to news after reading an article or headline. Social media differs from mass media in that information makers there are trained professionals. Professionals in the mass media have a specific role: they cover news stories in every aspect that can be covered, which leads to the generation of information in every section that can be produced, creating fragmentation. Balkanization is perhaps more likely to occur and herding is less likely to occur in mass media.

**c) Potential investor**

According to Alfredo and Vicente (2010), a potential investor is someone who evaluates, forecasts, examines, and assesses the process used in making decisions, which includes investment psychology, information collection, defining and comprehending, research, and analysis. The mood and confidence of investors can influence market movements. Stock prices may rise or decrease as a result of this. The value of a stock can be impacted by the overall direction the stock market takes. Petter (2008) posits that common stock owners are driven to make investment decisions by four factors: (1) dividend income; (2) quick growth; (3) purposeful investing as a protective outlet of savings; and (4) professional investment management.

**d) Firm image**

A company's reputation has long been seen as an ethereal asset that is hard to quantify. This challenge arises from the social perception's inconsistency brought about by the increasing variety of information available in the market. On the other hand, in the business world, image urgency is extremely important since it's thought to be the key to a company's capacity to survive financially. Nimpoeno and Ardianto (2010) state that the image is composed of four components: motivation, cognition, perception, and affection. The four components come from events and stimuli that people encounter.

## **CHAPTER-IV**

### **DATA PRESENTATION AND ANALYSIS**

The presentation and analysis of the data gathered from the research questionnaire are the topics of this chapter. This chapter's primary goal is to examine the data and turn them into insightful knowledge. Based on the examination of 400 questionnaires filled out by active investors from various backgrounds that were deemed suitable for participation, the conclusions have been drawn. According to the respondents, social media allows management to get pertinent information for making informed decisions. A significant percentage of the participating organizations use these strategies, and the respondents believe that they are beneficial. Research has used statistical analysis results for study subjects to examine the effect of social media activity on stock market price.

#### **4.1 Data Presentation and Analysis**

##### **4.1.1 Demographic Profile of Respondents**

This section deals with the demographic analysis and interpretation of primary data collected through questionnaires. The analysis of demographic profile is done by the interpretation of the responses collected. Respondents profile was categorized according to their gender, age, education level. The respondents of the research were those people who active trades of stocks. 500 respondents were selected for this study and the questionnaire was distributed to them through personal visit, online and through email. Out of the 500 questionnaires, only 400 valid responses were collected. Hence, the response rate was 80% percent.

To ensure all respondents who are suitable for this survey, the screening questions are applied at the beginning of the questionnaire. The respondent's must have at least involve in trading activities. The result revealed all respondents, 400 in total, have acquired at least one stock of any company.

##### **a) Gender profile**

In order to generate the overall assessment, the viewpoint of both male and female in firm-reacted messages and user-generated messages in social media platform are considered in this study. The frequency and percentage of the gender of the respondents is depicted.

Table 4.1

*Distribution of respondents' base on gender*

	Frequency	Percent
Female	182	45.5
Male	218	54.5
Total	400	100

*Source: Survey, 2024*

Table 4.1 shows the gender distribution of respondents. They show that the participation of male respondents was more than that of female respondents in the sample size of 400. The percentage of male and female respondents was account for 54.5% and account for 45.5% respectively.

**b) Ages**

The age of the respondents is categorized into four different groups as below 20 years, 20-30 years, 30- 40 years, 40 or above. The tabulations of age group were generated to explore the distribution of the age group of the respondents. This was to determine the percentage distribution of the age groups of person who responded.

Table 4.2

*Distribution of respondents based on ages*

		Frequency	Percent
Ages	20 or below	32	8
	21-30	87	21.75
	31-40	112	28
	40 or above	169	42.25
	Total	400	100

*Source: Survey, 2024*

Table 4.2 show the ages distribution of respondents. Around half of the respondents' age is cover by 40 or above (42.25%). Then respondents age 31-40 cover 28%. There are 21.75% respondents aged 21-30 and very least percentage of respondent (8%) age 20 or below.

### c) Education level

The education level of the respondents are categorized into four groups as below secondary, 10+2, bachelor and masters or above the frequency distribution of respondents as per their education level is shown.

Table 4.3

*Distribution of respondent based on educational level*

		Frequency	Percent
Education level	10+2	92	23
	Bachelor	208	52
	Master or above	100	25
		400	100

*Source: Survey, 2024*

Table 4.3 show the education level of the respondents. The majority of the respondents had the education level bachelor, which is 52% of the total sample. Similarly, 25% respondents had education level of masters or above. Last but not the least, 23% respondents was 10+2 pass. There was not any respondents having secondary or below education.

### d) Trading behaviour by social media

Most of trader is somehow engage in getting information for trade different platform of social media. Here the respondents are categorized into four behaviour as below the table shown.

Table 4.4

*Distribution by impact in trading behaviour by social media*

Level of impact in trading behaviour	Frequency	Percent
Always	44	11
Often	92	23
Sometimes	102	25.5
Rarely	162	40.5
Total	400	100

*Source: Survey, 2024*

Table 4.4 represents the level of impact on apparel purchase behaviour of the respondents by social media. Most of the respondents i.e. 25.5% of the total respondents agreed that their apparel purchase intentions would be influenced only sometimes based on social media information. Similarly 40.5% got rarely or are least influenced in apparel purchase preference based on social media. On the other hand only 23% said they were often impacted on their apparel purchase preference due to social media while only 11% indicated that their apparel purchase preference was always influenced by social media. This data shows that the impact is low but there is gradual increase in people accepting the influence of social media in their apparel purchase behaviour.

#### 4.1.2 Descriptive Statistics Analysis

The data in this study are analyzed using the mean and standard deviation methods. A higher mean value indicates that a greater number of respondents concur that the variable may have a significant effect on stock market price.

#### Frequency of facebook users

Through descriptive research, this part investigates the influence of facebook dependability on stock market price in NEPSE listed company. Three statements are included in this study's definition of dependability. The variable is quantified on a 5-point likert scale, with 1 being strongly disagree and 5 being highly agree. The mean and standard deviation of respondents' opinions are computed. The information shown below depicts the effect of dependability on stock market price.

Table 4.5

*Descriptive statistics of frequency of facebook*

	Mean	Std. Dev.
The frequency of News on facebook has influence on purchasing stock price.	3.74	1.19983
The more ads apperar on my facebook, more it gets my attention and interest.	3.87	1.09961
I seek out for news shown on facebool than other media.	3.825	1.0485

Source: *Appendix*

Table 4.5 shows descriptive statistics of three different scale items of frequency of facebook. Among all scale items, "The more ads appear on my facebook, more it gets my attention and interest" had high score mean 3.87. Scale item "The frequency of News on facebook has influence on purchasing stock price" had the lowest mean 3.74. It can be concluded from the above table the social media had provide all details so that it influence the trader and stock market price.

### **Frequency of mass media users**

Through descriptive analysis, this section demonstrates the frequency of mass media users. It has three distinct assertions. This concept was assessed using a 5-point likert scale ranging from 1-strongly disagree to 5-strongly agree. The mean and standard deviation of the respondents' opinions were computed.

Table 4.6

#### *Descriptive statistics of frequency of mass media users*

	Mean	Std. Dev.
I view stock price news before trade on different mass media.	3.8050	1.03067
Mass media comments on any apparel stock related news have greater influence on my stock purchase decision.	3.8250	1.03912
I am able to seek out details apparel related information from mass media.	3.7850	1.14689
I trust on comments and recommendation done in different mass media than other source.	3.8000	1.07507

Source: *Appendix*

Table 4.6 shows descriptive statistics of four different scale items of frequency of mass media users. Among all scale items, "Mass media comments on any apparel stock related news have greater influence on my stock purchase decision" had high score mean 3.8250. It means most of the traders agreed comment done in means of mass media on any apparel stock related news have great influence on stock purchase decision. At the same time, the lowest mean score is 3.7850 for the statement "I am able to seek out details apparel related

information from mass media" which shows that most of the trader are able to seek out details related information from mass media than other statements.

### **Frequency of Potential investor**

Through descriptive research, this part investigates the state of frequency of potential investor. Four statements are included in this investigation. The variable is assessed using a 5-point likert scale: From 1 (strongly disagree) to 5 (strongly agree). The mean and standard deviation of respondents' opinions are computed. The mean value represents the average state of the respondents' feelings, while the standard deviation represents the difference from the average mean of the respondents. The figures shown below depict the influence of potential investor on stock market price.

Table 4.7

#### *Descriptive statistics of frequency of potential investor*

	Mean	Std. Dev.
I am aware of most of the apparels because I spend more time and money on stock market.	3.91	0.89212
Most of the time I spend on different trading news for actual information.	3.88	1.03000
I am satisfied with the news generated on social media sits by other.	3.8050	1.02579
I am always aware of stock treading fluctuation.	3.86	0.96699

Source: *Appendix*

Table 4.7 shows descriptive statistics of five different scale items of frequency of potential investor. Among all scale items, "I am aware of most of the apparels because I spend more time and money on stock market" had high score mean 3.91. Scale item "I am satisfied with the news generated on social media sits by other" had the lowest mean 3.8050. It can be concluded that potential investors are aware and satisfactory with the new generated on social media.

### **Base on firm image**

Through descriptive research, this section demonstrates the firm image base on stock market price. It has four distinct assertions. This concept was assessed using a 5-point likert scale ranging from 1-strongly disagree to 5-strongly agree. The mean and standard

deviation of the respondents' opinions were computed. The mean value represents the average state of the respondents' feelings, while the standard deviation represents the difference from the average mean of the respondents.

Table 4.8

*Descriptive statistics of firm image*

	Mean	Std. Dev.
I can quickly recall the symbol or logo of different stocks according to it's worth.	3.7750	1.12280
Each stock of different company has a unique image according to their competing bands.	3.8150	1.0847
Each stock provides separate returns and offers at the promised declaration.	3.8300	1.11233
Social media has become an effective platform to enhance firm image of apparels.	3.8250	1.02940

Source: *Appendix*

Table 4.8 shows descriptive statistics of four different scale items of firm image. Among all scale items, "Each stock provides separate returns and offers at the promised declaration" had high score mean 3.8300. Scale item "I can quickly recall the symbol or logo of different stocks according to its worth" had the lowest mean 3.7750. It can be concluded that social media is becoming an effective platform to enhance firm image. In addition, the social media has created unique and powerful platform to enhance firm images.

#### **4.1.3 Summary of descriptive analysis**

To identify stock market price and its impact by social media, the mean and standard deviation of each variables were analyzed. Using reliable sources that Creswel (2012) gave, the decision rule (cut-off point) for the mean values was determined and interpreted. Creswel (2012) states that a mean value of  $< 1.5$  indicates very low, 3.5-4.5 indicates high, 2.51-3.5 indicates moderate, and  $\geq 4.5$  indicates very high. The researcher reported the participants' mean score for each category of variable descriptions based on this mean score assessment

Table 4.9

*Summary of descriptive analysis*

Study variables	Mean	Std. deviation	Evaluation of Mean score
Frequency of facebook users	3.8225	0.83448	3.8225 $\geq$ 3.5-4.5 (High)
Frequency of mass media	3.8037	0.78294	3.8037 $\geq$ 3.5-4.5 (High)
Frequency of potential investor	3.8638	0.75555	3.8638 $\geq$ 3.5-4.5 (High)
Base of firm image	3.8113	0.80024	3.8113 $\geq$ 3.5-4.5 (High)

Source: *Appendix*

Table 4.9 shows the result of the study shows that mean score for the stock market price is recorded 3.7750 which show the level is high. It shows that all elements of listed company in Nepal are at high level which all falls in the range from 3.8037 to 3.8638. The mean score value of assurance is 3.8638 which is the highest mean score value compared to the other elements, reliability, responsiveness, tangibles and empathy. This indicates that assurance of social media impact is the dominant element in this study when it can be evidenced by the overall value of the highest mean score of 3.8638. In other word, it is obvious that majority of the investor agreed that social media is the highly affecting factor of stock market price fluctuation and they accepted that price level is also high when the assurance level is high. Meanwhile, facebook, mass media, potential investor and firm image got an overall mean score of 3.8225, 3.8037, 3.8638 and 3.8113 respectively.

#### **4.1.4 Correlation analysis**

Correlation analysis was used to determine the effect of social media on stock market price. The tables below show the relationship between the dependent and independent variables, namely market price of stock and factors. Correlation analysis was used in this study to determine the link between variables. Using the SPSS software, the researcher discovered the value of the correlation co-efficient in this investigation. The correlation research concentrated on the overall link between social media and stock market price.

Table 4.10

*Person correlation coefficients of study variables*

Variables	1	2	3	4
1. Facebook users	1			
2. Mass media users	0.609 <sup>**</sup>	1		
3. Potential investor	0.632 <sup>**</sup>	0.646 <sup>**</sup>	1	
4. Firm image	0.855 <sup>**</sup>	0.877 <sup>**</sup>	0.870 <sup>**</sup>	1
Mean	3.572	3.328	3.658	3.2244
Standard deviation	1.0768	1.1376	1.0756	1.2244
**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).				

Source: *SPSS analysis*

Table 4.10 shows that significant positive correlations were found among all study variables. However, the association of variables measured by correlation. Coefficients do not indicate the effect of a particular variable on the other (Mishra & Suar, 2010). Therefore, to examine the effects of social media on stock market price, the firm image on stock market price, mass media on stock market price, and overall aspects of social media on stock market price, standard multiple regression analyses were used.

#### 4.1.5 The multiple regressions analysis

When examining the association between a dependent variable as stock market price and separate variables such as facebook, mass media, potential investor and firm image of Nepalese listed company in NEPSE, the regression analysis technique is used in this study. And the results are presented below:

Table 4.11

*Model summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.858 <sup>a</sup>	0.729	0.729	0.41637

a. Predictors: (Constant), Facebook, mass media, potential investor and firm image

Source: *SPSS analysis*

The specification of the four variables such as facebook, mass media, potential investor and firm image variables in the model revealed, predict to stock market price. R square value is 0.736 which are in the models shows that 73.60 percent of variation in stock market price is explained by the changes in the independent variables. Remaining 26.40 percent of the change in stock market price is not explained in this regression model.

Table 4.11

*Structure of ANOVA table*

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	93.617	63	18.723	107.999	0.00 <sup>b</sup>
	Residual	33.633	337	0.173		
	Total	127.250	400			

a. Dependent Variable: Stock market price

b. Predictors: (Constant), facebook, mass media, potential investor and firm image

Sources: *SPSS analysis*

Table 4.11 shows that with ANOVA (F-value) indicate that explains the most possible combination of predictor variables that could contribute to the impact of dependent variables. Results show significant impact of stock market price indicator. On the F-values of 107.999 ( $p = 0.000 < 0.05$ ) for facebook, mass media, potential investor and firm image as stock market price proxy, it clearly shows that there is a significant effect of independent variables on the dependent variable.

Table 4.12

*Regression coefficient of independent variable on stock market price*

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.570	6.668		1.735	0.090
	Facebook	0.239	0.044	0.245	.026	0.000
	Mass media	0.221	0.039	0.253	2.313	0.000
	Potential investor	0.340	0.045	0.346	2.240	0.000
	Firm image	0.864	0.36	0.796	.379	0.000

a. Dependent Variable: Stock market price

Sources: *SPSS analysis*

Table 4.12 shows that stock price trend effect by different medium of information on overall aspects of social media have positive relationships with market stock price in the Nepali stock market. Therefore, the results support the study objective. It is inferred that the different aspects of social media influence investment behavior on stock price in the Nepali stock market. However, the results revealed that the facebook, firm image, potential investor, and mass media of variables variations in stock market price have positive and significant relationship with dependent variable.

#### **4.2 Major Findings of the Study**

This study investigates in detail how the social media affect the stock market price of a listed company in NEPSE, with the reference from literature review, various relevant independent and dependent variable were identified. In order to analyze this, the relationship of social media and stock price based on four dimensions was studied.

Studies on social media and stock price tend to points out a positive relationship, this connection has not been fully established. This study found that all the aspects of social media have positive relationships with stock market price in the context of the Nepali stock market. This finding conceded with a number of past researches, Jain and Mirman, (2005), Java et al., (2007), Fang and Peress, (2009), Bollen et al., (2011), Lee et al., (2015). For instance, studies conducted among 200 Nepalese investors (Joshi, 2021) showed significant positive relationships between social media and investment decisions. Lee et al. (2015) observed that there is a positive relationship between online behavior on social media and investment decisions. Likewise, Devi and Bhaskaran (2015) discovered a strong association between the online community's behavior on Twitter and investment decisions. Similarly, Forbes and Forbes (2013) investigated that online community behavior has the strongest impact among three variables. However, Ngai et al. (2015) argue that it is critical for recognition of the communal element to encourage user involvement in cooperative behavior on online social media platforms.

But this finding contradicts certain other studies. The authors of Tetlock (2015), Ma and McGroarty (2017), Kumari (2019), Rani and Prerana (2021), Wu et al. (2017), and others have indicated that variations in the study's design, investor financial literacy rates, methodsological and statistical approaches, stock market development, and national sociocultural and political-economic environments must have contributed to the variation

in the results. Similar to this, some academics contend that social media is unreliable since it can mislead, conceal, or alter crucial information, especially from unsophisticated retail investors (Kumari, 2019). In a similar spirit, Tetlock's (2015) study discovered that even with an abundance of information and experience, investors' decisions to make investments based on social media did not result in sufficient returns. It is also important to note that, in addition to control variables like age, gender, education, investor income level, and the nation's socioeconomic status, some other variables may also have an impact on stock market price. These include the quality of information, CSR news, corporate disclosure, and corporate posts on social media.

## **CHAPTER-V**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Summary**

The primary goal of this study was to ascertain how social media affects the stock price of the NEPSE-listed company. Additionally, the primary goal of the study was to examine how Facebook and the mainstream media affect a company's stock price on the stock market.

Several factors that best match the research scope were identified in order to meet the study's objective. Only after examining the many literatures on the study's related issue could these components be identified. The study's primary variables are the amount of time spent on Facebook, exposure to the media, prospective investors, and company reputation. Age, gender, and educational attainment were the moderating variables taken into account in this study.

The several variables identified for this study were taken into consideration when creating a structured questionnaire. The maximum age limit for respondents was set at 40 years of age or older, as the study's focus was on stock market prices. Since 400 respondents made up the sample size, there are an equal number of respondents in each of the four age groups that were formed, which range from 20 to 40 years old or older.

This study had 96 respondents apiece, representing equal numbers of respondents in age groups ranging from 20 to 40. It was discovered that age has no bearing on the effect of social media on stock market price. In a similar vein, 45.5% of the population is male and 54.5% is female, about equal numbers. It was discovered that there was no meaningful correlation between gender and the effects of social media.

The majority of responders held a bachelor's degree (52%), then a master's degree (25%). It was also discovered that the influence of social media on stock market price was not significantly correlated with education level.

Consistent updates and news offers were ranked as the most influential factor in Facebook and mass media, with potential investors ranking third among users. This study looked at the features of Facebook and mass media that have a significant impact on the stock price of listed companies. After testing the relationship, it was also discovered that recommendations and comments on Facebook significantly impacted the tread company's stock price.

Similar to this, the study of the data shows that judgments about stock prices are significantly influenced positively by online information from sources like Facebook, the media, the firm's image on social media, potential investors on mass media, and general social media features. It follows that while making investments that affect stock price, investors in the Nepali stock market should take into account various social media factors in addition to technical or fundamental analysis. Before making an investment, investors were influenced to consider the veracity of information they learned from social media platforms. This was especially true when it came to portfolio diversification, creating entry and exit criteria, and following profitable trading or investment tactics from the past.

The results of this study had important implications for the survey; most respondents felt that their trading was also high and that information from various mass media outlets, including social media, had a substantial impact on stock market prices. The correlation between responsiveness and market stock price as well as the reliability of social media information have both been found to positively and significantly correlate with stock price. Concurrently, there is a strong positive correlation between stock price and potential investors on social media. Consequently, this study showed that social media information has a significant impact on market stock price.

## **5.2 Conclusion**

The importance of social media information in the stock market has been made clear by research on social media and its effect on stock prices. Social media is still important in today's world of ever changing consumer behavior and culture. By providing a vast array of news and information and quickly and inexpensively reaching millions of people, it affects the decisions made by a variety of users, including individuals, corporations,

businesses, and public and private services. Social media is incredibly successful because of its openness, simplicity, and individuality.

The findings of this study show a positive correlation between stock price and the number of social media users within a business, indicating that companies with higher stock prices are more likely to have a sizable user base. Furthermore, the number of social media accounts for corporations is positively (or adversely) correlated with the volume of stock trading. As a result, the findings supported the behavioral finance theory, which contends that psychological variables such as taste and desire affect investors' decisions. Lastly, there are a number of restrictions on the current study. Both the time period and the sample size were constrained. Finding the relationship between social media mood and stock market performance required more research than just looking at trading companies.

It can now be said that even though social media has shown to be quite important in the fluctuations in stock values. Social media has a significant role and affects the stock market. In the current state of the market, social media is also assisting investors and the stock market with their trading.

### **5.3 Recommendations**

- There are theoretical and practical ramifications to this research. The majority of studies examining the relationship between stock market information and social media are conducted in industrialized nations (Agarwal et al., 2019). This could be explained by the fact that emerging economies present a whole distinct set of difficulties, such as the underdeveloped stock markets in these countries (Claessens and Yurtoglu, 2013). This study demonstrates how effective the Nepalese stock markets are in light of the data that is accessible on social media. It demonstrates how stock values immediately reflect information found on the internet. The fact that there are still problems with the gadgets' price and accessibility could be one of the causes of this. It also demonstrates how diverse the informational efficiency across various economic sectors is when it comes to information shared on social media. It also offers details on the effects of both positive and negative information on a nation's many sectors.

- According to this study, social media has a significant influence on stock market investors. As a result, the study is a great resource for investors, scholars, and students who want to go more into the subject. Future researchers can now use client demographic data for their research thanks to the foundation our study has laid. This survey solely examines the price of stocks. To further strengthen the validation and broaden the applicability of the results, additional study in other variables may be conducted.
- Many additional scholars who wish to do research on social media marketing in Nepal will find opportunities to do so as a result of this study. This study also shows that a company can use social networks to anticipate the possibility of a purchase intention. This can be achieved by considering the network that a company chooses (Facebook, Twitter, LinkedIn, etc.) and by looking at the data on that network. In order to enhance a company's marketing endeavors, it is imperative that they evaluate a network's data thoroughly. In a similar vein, the business should offer the essential data about the users of the network, which aided in figuring out the most effective social media strategies for that specific website.
- This study suggests that another important component in ensuring the effectiveness of internet marketing for a business is understanding which social media platforms are used by their target audience.

## BIBLIOGRAPHY

- Antweiler, W., & Frank, M. Z. (2004). The information content of internet stock message boards. *The Journal of Finance*, 59(3), 1259-1294.
- Bollen, J., Mao, H., & Zeng, X. (2011). Twitter mood predicts the stock market. *Journal*
- Borgatti, S. P., Mehra, A., Brass, D. J., & Labianca, G. (2009). Network analysis in the social sciences. *Science*, 323(5916), 892-895.
- Dr. S. Kavitha and R. Bhuvaneshwari (Jan. 2019), *A study on factors involving the usage of social media on investment decision making with reference to investors of selected stock broking houses in Coimbatore*, Vol 7 (1)
- Ekta Ashokkumar Mistri and Dr. Gurudutta P. Japee (July-Sept. 2020), *Analyzing the role of social media in investment decision with special reference to South Gujarat*, Vol. 3, Issue 3
- Jeet Singh and Preeti Yadav (2016), *A Study on the Factors Influencing Investors Decision in Investing in Equity Shares in Jaipur and Moradabad with Special Reference to Gender*, Vol. 1, Issue 1
- Naresh Reddy Bollampelly (Aug. 2016), *Understanding role of social media in investor reactions*, Dublin Business school  
*of Computational Science*, 2(1), 1-8.
- Safa Khalil Abu-Taleb, Fredrick Nilsson (Oct. 2021), *IMPACT OF SOCIAL MEDIA ON INVESTMENT DECISION A quantitative study which considers information online, online community behaviour, and firm image*, Bachelor Thesis, 15 Credits, Spring 2021
- Sahel Ali Al Atoom, Dr. Khaled Khalaf Alafi and Dr. Mazen Mohammad Al-Fedawi (2021), *The effect of social media on making investment decisions for investors in Amman Financial Market*, Vol. 15, issue 6
- Shakerin Ismail, Radha K. Nair, Rahana Sham and Siti Norida Wahab (Oct 2018), *Impact of online social media on investment decision in Malaysia*, UCSI Universtisy. Vol. 9, No. 10.
- Sharda Kumar (June 2017), *Impact of social media on biases of Individual Investor's decision making*, Journal of management research and review
- Shiller, R. J. (2015). Impact of Social media and the stock market. *Emerging Markets Review*, 46, 100775.

Tricha Hinojosa, Shazia Miller, Andrew, Swanlund, Kelly Hallberg, Megan Brown and Brenna O'Brien (2010), *The impact of the stock market game on financial literacy & mathematics*

Yavana Rani S and Prenana. M (July 2021) *Social media influence on the investment decisions amount the youth adults in India*, Vol. 2, Issue 1

# IMPACT OF SOCIAL MEDIA ON STOCK MARKET VOLATILITY

By: Laxmi Prajapati

As of: Jul 1, 2024 2:44:15 PM  
15,417 words - 99 matches - 8 sources

Similarity Index

12%

Mode:  ▾

## sources:

406 words / 3% - Internet from 11-Jan-2023 12:00AM  
[elibrary.tucl.edu.np](http://elibrary.tucl.edu.np)

450 words / 3% - from 01-Jun-2023 12:00AM  
[tind-customer-uchicago.s3.amazonaws.com](http://tind-customer-uchicago.s3.amazonaws.com)

322 words / 2% - from 15-Aug-2023 12:00AM  
[www.nepjol.info](http://www.nepjol.info)

215 words / 1% - from 25-Jun-2024 12:00AM  
[elibrary.tucl.edu.np](http://elibrary.tucl.edu.np)

191 words / 1% - from 17-Mar-2024 12:00AM  
[srmus.ac.in](http://srmus.ac.in)

121 words / 1% - from 23-Jun-2023 12:00AM  
[nepjol.info](http://nepjol.info)

97 words / 1% - Crossref  
[Hua Zhang, Yuanzhu Chen, Wei Rong, Jun Wang, Jinghua Tan. "Effect of social media rumors on stock market volatility: A case of data mining in China", Frontiers in Physics, 2022](#)

95 words / 1% - Internet from 30-Nov-2018 12:00AM  
[www.emeraldinsight.com](http://www.emeraldinsight.com)

## paper text:

CHAPTER-I INTRODUCTION 1.1 Background of the Study Social media, one of the digital media platforms, has allowed people to network, communicate, and do away with national boundaries across democratic nations. Social media comes in several forms, with social denoting interpersonal connection and media serving as a means of networking, knowledge acquisition, review, and sharing. Social media networks include WhatsApp, Snapchat, Facebook, Instagram, LinkedIn, and more. Other forms of social media include social news, microblogging, media sharing, bookmarking websites, and community blogs. Because social media is still a relatively new technology, not much research has been done to determine the long-term effects, positive or negative, of using it. Nonetheless, a number of studies have discovered a direct connection between increased mental health issues like suicidal ideation, self-harm, loneliness, anxiety, and despair and extensive social media use. The "new communication democracy" has come up for discussion because of the impact of social media applications. It's a technological innovation that has drastically altered civilization. Through