# Relationship between Social Media and Investment Decisions in the Nepali Stock Market

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Article History: <u>Submitted</u>: 1 February 2023; <u>Reviewed</u>: 25 February 2023; <u>Revised</u>: 6 March 2023 Corresponding Author: Bal Ram Chapagain, Email: balram.chapagain@cdm.tu.edu.np; ORCID: https://orcid.org/0000-0002-9834-085X

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Abstract

The growing pervasiveness and influence of social media in different spheres of life cannot be denied at all. In this light, this study aims to examine the relationship between different aspects of social media and investment decisions in the context of the Nepali stock market. The study sample included 384 retail investors, and the data was collected through structured questionnaires. Descriptive statistics, Pearson correlation, and standard multiple regression analyses were used to analyze the data. Although significantly positive relationships were found between all aspects of social media and investment decisions, content on social media has a stronger relationship with investment decisions relative to the online community behavior on social media and corporate image on social media. This is among the limited studies of its kind in the distinct socio-economic context of Nepal. Corporate managers may regularly update relevant information on their social media platforms for attracting potential investors and increase their firm value. Likewise, regulators may run investor education programs in order to protect investors, particularly immature retail investors, from the risk associated with potentially less reliable information on social media platforms. Future researchers may employ a mixed-method research design to uncover the comprehensive set of factors influencing investment decisions in the context of the Nepali stock market.

**Keywords**: Investment decisions, Retail Investors, Social Media, Stock market, Nepal

#### Introduction

Social media sites and microblogs—Facebook, LinkedIn, Twitter, Tumbler, Instagram, WhatsApp, snap chat, as technological means generating, distributing, and communicating the information in virtual communities and networks has become an integral part of human existence (Linos, 2018). As a composite of sociology and technology, it has influenced almost all aspects of human life (Nair, 2011). Social media as an opinion mining and computational system (Bukovina (2016), in last 12 months, the number of social media users worldwide has increased by an extra 5%, bringing the most current global total to 59 percent of the world's population. In this context, social media has drastically transformed the way individuals live and exchange information. In Nepal's context, Digital Nepal (2022), reported 13.70 million social media users in Nepal in January 2022. Among the common factors influencing stock investments, such as are earnings and image factors, corporate governance and positioning factors, goodwill and market share factors, industry competition and size factors, fundamental market factors, and decision-making factors, as identified by According to Rana (2019), this study treats social media as factors influencing decision making.

Given the escalation and attachment of social media to daily life, social media-based investment decision analytics has itself established as a researchable issue. Consumers are leaning less toward professional advice and more toward customer recommendations when making purchases, which has been made simpler by the growth of social media (Chen et al., 2014). Most investors in the stock market dominated by retail investors lack financial market knowledge, and they are always looking for a sign that can provide additional information about listed firms (Huang, 2021). Especially, when selling anything, social media has a large user base that will significantly influence the product advertising process. People have access to different social media platforms, including YouTube, Snapchat, Instagram, and TikTok (Maurencia et al., 2021). In 2018, Nepal Stock Exchange (NEPSE) incorporated a new online trading management system that gives the access of investment in the stock market. Social media is playing an influential role in

the decision-making process of individual investors, including those that can be considered high-net-worth investors (Mudholkar & Uttarwar, 2015).

The efficient market hypothesis claims that the stock market is efficient and that the share price reflects all of the available information (Zahera &Bansal, 2018). Specifically, social media platforms play a vital role in informing a variety of individuals, notably retail investors (Li et al., 2020). Rudin (2019) assessed that the prominence of internet sites would continue and the information and communication channels on social media platforms play a vital role in the investor's decision-making. A study by Agrawal et al. (2015) has provided a deeper consideration of the abilities and boundaries of online markets to make easy transactions and convey information between buyers and sellers with shifting degrees of communal connectedness. In the similar vein, Siikanen et al. (2018) have found that the choices of purchase versus sell were linked with Facebook data, particularly for unreceptive households and nonprofit. However, Wu et al. (2017) revealed that the impact of different factors, where increased consideration of a stock's unpredictability, is more important than public opinion.

A study in a Malaysian context found that the factors including content on social media, behavior of online community, and image of firm on social media had a significant effect on investment decisions (Ismail et al., 2018). In the same way, Lo & Chau, (2019) examined the connection between social networking sites and penny stocks. The study concluded that the control impact of penny stocks was significant in short term, and revealed a tougher association between social media and stock performance at cheap cost and market capitalization levels with simple strategies utilizing social media. Likewise, Yogesh & Yesha (2014) in the Indian context discovered that social media was widely used as a knowledge source for its alleged usefulness, veracity, and perceived reliability. Investor emotions were found to have positively influenced the decision-making and herding as well as the media component (Ph & Uchil, 2020). Furthermore, Mehta et al. (2021) found that the optimistic news effect was perhaps to replicate that the share market values are overpriced, and if it was pessimistic, then the effects of the tendency were low. Psychological factors, social interaction, regulatory policies, and a firm's image have significant effects on investors' decision-making behavior, and for

experienced investors only social interaction has a significant effect on investors' decision-making behavior (Gnawali, 2021). In the same way, a most recent study done on the Swedish stock market by Abu-Taleb & Nilsson (2021) found that there is a positive significant relationship between social media and investment decisions. However, immature adults utilize social media habitually. They make investment decisions with the assistance of social media (Suman & Rishabh, 2022).

Though multiple researches have emphasized the importance, role, effect, and impact of social media on investment decisions all over the world, most of the existing literature is attributed to the relatively small sample size and focused on developed country contexts. Nepali context has received no research or very limited research work that scrutinizes the relationship between social media and investment decisions. Against this backdrop, this study seeks to answer the questions on the kind of relationships between different aspects of social media and investment decisions among retail investors in the context of Nepali stock market.

## **Review of Literature and Development of Hypotheses**

Several Studies In The Past Have Explored The Relationship Between Different Aspects Of Social Media And Investment Decisions. But, This Study Mainly Reviews The Studies Exploring The Relationships Of Online Community Behavior On Social Media, Corporate Image On Social Media, And Content On Social Media With Investment Decisions, Which Form A Base For Hypotheses Development In Line With The Research Questions Raised.

# *Relationship between Online Community Behavior on Social Media and Investment Decisions*

Rakibul et al. (2019) revealed that social networking groups, trademark fan pages, and paid promotions have significant positive relationships with purchase decisions. Similarly, Ridings and Gefen (2004) found that online community behavior had a significant impact on particularly retail investors in the capital market. Furthermore, online community has the advantage of educating each other and mining opinions that are related to investment in the stock market (Bukovina, 2016). In the same way, Tan and Tan (2012) investigated that social media user behavior has a substantial positive influence on social development and the decision-making process. Hence, it may be hypothesized that:

H<sub>1</sub>: There is a positive relationship between online community behavior on social media and investment decisions in the Nepali stock market.

#### Corporate Image on Social Media and Investment

Gray and Balmer (1998) found that in today's insightful trade milieu, a firm's decisive endurance might well depend on budding and keeping a decipherable representation and favorable status. Scholars have argued that the more a company engages in internal and external CSR practices, the greater will be the corporate image and profitability that help to attract potential investors (Chapagain, 2022). Likewise, Jones et al. (2000) found that corporate image on social media attracted more investors and increased its stock price. Moreover, Pérez et al., (2020) found that corporate image has significant effects on the stock market value of firms. Similarly, Lusiana et al. (2021) found that clear disclosure and corporate social responsibility (CSR) significantly affect financial performance, impacting firm value. The concept of corporate image is multifaceted and depends on the real company image, its drivers, and customer evaluation (Spector, 1961). To put it differently, Kumari, (2019) explored that pessimistic disclosure in online social media can speedily affect investment decisions. Luo et al. (2018) also recommended that firm's criticisms on social networking platforms have significantly lowered its market value. Hence, the next hypothesis of the study can be stated as:

H<sub>2</sub>: there is positive relationship between corporate image on social media and investment decisions in the Nepali stock market.

#### Content on Social Media and Investment Decisions

According to Jiao et al. (2020), there is a significant positive correlation between social media reporting, return instability, and trade motion. Similarly, in a study in Amman financial market, it was found that investors' rationalization and investment decision-making were influenced by unique media applications and forms represented by particular media (Ali et al., 2021). Furthermore, Andrej Cwynar et al. (2019) revealed the authentic worth of social media content in terms of its capability to update financial market professionals but the professionals are detached from the information content of social media as they do not regard it as credible or easily convertible into money. Online social media has an important role in exchanging information with a wide-ranging people, especially individual or retail investors Li et al. (2020). According to Shantha Gowri (2019), the decision-making capability of investors is determined by the degree of information dissemination, information content, and information power, as well as by specific interior elements and common external influences on investors that are present at that particular situation.. Considering the conceptual underpinnings and observable evidence outlined above, thus, it is hypothesized that:

H<sub>3</sub>: There is a positive relationship between content on social media and investment decisions in the Nepali stock market.

# **Overall Aspects of Social Media and Investment Decisions**

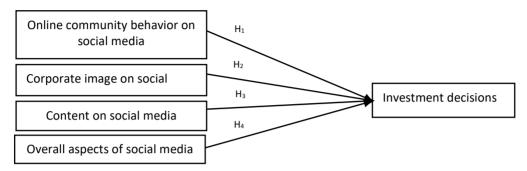
The popularity of social media platforms would spread information and social media platforms would serve as essential communication channels for investors when making decisions (Rudin, 2019). In this connection, a study by Haque et al. (2022) has revealed that a person's intent to utilize online social networking sites has a significant impact on the stock market investment decisions. Platforms like social media assist both individual and institutional investors for better understanding of market sentiment (Baker, 2017). Hence, it is hypothesized that:

H<sub>4</sub>: There is a positive relationship between overall aspects of social media and investment decisions in the Nepali stock market.

Based on the proposed hypotheses, a conceptual model can be developed for examining the relationships between different aspects of social media and investment decisions as shown in Figure 1.

## Figure 1

Conceptual framework for examining the relationships between different aspects of social media and investment decisions



(Source: Ismail et al., 2018; Abu-Taleb & Nilsson, 2021)

## **Research Methodology**

# Population and Sample of the Study

The population of this study comprises the retail investors in the Nepali stock market. The convenience sampling method was used to select the respondents for the study. Because of too large population, the Z-score method was used to calculate the appropriate sample size as suggested by Naing (2003). Accordingly, 384 retail investors (individual investors) were chosen as a sample of the study.

## **Data Collection Instrument and Procedure**

The structured questionnaires were designed corresponding to the essence of the research questions raised with all questions in closed-ended format. Items in the questionnaire were adapted from previous studies (Abu-Taleb & Nilsson, 2021; Luong & Ha, 2011; Rani & Prerana, 2021). First, a draft version of the questionnaire was distributed to some experts and industry professionals to for feedback and suggestions if it needs further improvement and correction. After the questionnaire was updated with necessary corrections, finally the questionnaires were personally administered to the respondents along with a cover letter that outlined the study objectives and promised the confidentiality of respondents' information.

### Study Variables

The study has two sets of variables: dependent variable: the investment decisions; and, independent variables: the online community behavior on social media, the corporate image on social media, content on social media, and overall aspects of social. The study adapted the variables like online community behavior on social media, the corporate image on social media, and investment decisions from Abu-Taleb and Nilsson (2021) as well as Luong & Ha (2011), and content on social media was taken from Rani and Prerana (2021). The overall aspect of social media is the aggregation of above-mentioned three different variables vis-à-vis social media.

#### **Data Analysis Tools and Techniques**

This study deploys descriptive statistics, such as mean, standard deviation, and correlation, to portray the status and characteristics of online community behavior, corporate image, content on social media, overall aspects of social media, and investment decisions. Moreover, it employs standard multiple regression analysis to examine the relationships between different aspects of social media and investment decisions.

#### Validity and Reliability

According to (Neuman, 2006), validity suggests truthfulness whereas reliability indicates consistency. Various measures have been taken to ensure the validity of this study. The scale items were provided to experts to classify them into different categories. Only the items with a minimum eighty percent agreement were selected. Thus, content validity was established. Similarly, the items were taken from the articles with tested scales that were published in reputed journals. Similarly, the inter-item consistency reliabilities of constructs or variables were confirmed through Cronbach's Alpha coefficients as shown in Table 1.

# Table 1

Variables	Cronbach's Alpha
Online community behavior on social media	0.850
Corporate image on social media	0.862
Content on social media	0.850
Overall aspects of social media	0.892
Investment decisions	0.830

Table 1 shows that each construct's Cronbach's Alpha value ranged from 0.830 to 0.892. Since the values of Cronbach's Alpha are higher than 0.7, the inter-item consistency reliability is adequate (Nunnally 1978; Jum, 1967) and less than 0.9, there is no problem of redundancy (Tavakol & Dennick, 2011).

# Results

Table 2 mainly demonstrates the correlations among study variables, which reveal the strength (weak or strong) and direction (positive or negative) of the linear relationship (Pallant, 2005). Likewise, the table also portrays the means and standard deviations of the study variables that describe the basic features of data in the study.

# Table 2

Variables	1	2	3	4	5
1. SM- Online community behavior	1				
2. SM- Corporate image	.609**	1			
3. SM- Content	.632**	.646**	1		
4. SM- Overall	.855**	$.877^{**}$	$.870^{**}$	1	
5. Investment decisions	.674**	.680**	.720**	.796**	1
Mean	3.572	3.328	3.658	3.2244	3.381
Standard deviation	1.0768	1.1376	1.0756	1.2244	1.1247

Correlation Coefficients, Means, and Standard Deviations of Study Variables

As shown in Table 2, significant positive correlations were found among all study variables. However, the association of variables measured by correlation

coefficients does not indicate the effect of a particular variable on the other (Mishra & Suar, 2010). Therefore, to examine the effects of online community behavior on social media, the corporate image on social media, content on social media, and overall aspects of social media on investment decisions, standard multiple regression analyses were used.

# Table 3

Standard Multiple Regression Analysis Examining the Relationship between Social Media and Investment Decisions

DV	IV	В	SEB	ß	$\mathbb{R}^2$	F	<i>p</i> -value
Investment decisions	SM- Online community behaviour	.239	.044	.245	.455	318.811	.000
	SM- Corporate image	.221	.039	.253	.462	327.811	.000
	SM-Content SM-Overall	.340 .864	.045 .36			411.315 168.049	.000 .000

Where, DV stands for dependent variable, IV for independent variable,  $\beta$  for standardized beta, R<sup>2</sup> for coefficient of determination, and F for F-test statistic. N= 384; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

Table 3 shows that online community behavior on social media, corporate image on social media, content on social media, and overall aspects of social media have positive relationships with investment decisions in the Nepali stock market. Therefore, the results support all four hypotheses identified for the study. It is inferred that the different aspects of social media influence investment decisions of retail investors in the Nepali stock market. However, the results revealed that the online community behavior, corporate image, content, and overall aspects of social media bring variations in investment decisions by only 45.5%, 46.2%, 51.8%, and 63.4% respectively.

# Discussion

Though a lot of studies on social media and investment decisions 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 investment decisions in the context of the Nepali stock market. This finding conceded with a number of past researches (Jain & Mirman, 1999; Java et al., 2007; Fang & Peress, 2009; Bollen et al., 2011; Lee et al., 2015). For instance, studies conducted among 200 Swedish investors (Abu-Taleb & Nilsson, 2021), 120 Indian retail investors (Rani & Prerana, 2021), and 100 Malaysian investors (Ismail et al., 2018) showed significant positive relationships between social media and investment decisions. Lee et al. (2015) observed that there is a positive relationship between online community 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 a recognition of the communal element to encourage user involvement in cooperative behavior on online social media platforms.

Similarly, Luo et al. (2010) found a significantly positive relationship between corporate image on social media and investment decisions. In a similar vein, Schniederjans et al. (2013) reveal that optimistic online social media posts affect the investor's confidence and positive investment decision. Abu-Taleb and Nilsson (2021) discovered a significant positive correlation between company social media presence and portfolio allocation. Similarly, Wu et al. (2017) found social media data has a large but fading impact on the volatility on the next day. It may be attributed to the fact that capital market experts are also affected by social media (Andrzej Cwynar et al., 2017). According to the studies by Java et al. (2007) and Bollen et al. (2011), social media greatly aid in the spread of information about capital market and companies' future prospects. Investors are thus urged to use online social media to look for information in order to take advantage of these opportunities and make better investment decisions (Jain & Mirman, 1999).

However, this study defies some other studies (Tetlock, 2015; Ma & McGroarty, 2017; Kumari, 2019; Rani & Prerana, 2021; Wu et al., 2017). For example, studies conducted in the USA (Tetlock, 2015), India (Kumari, 2019), and China (Wu et al., 2017) found negative relationship between social media

and investment decisions. However, the variation in the result must have been caused due to the differences in the nature of the study, differences in the rate of financial literacy among investors, differences in methodologies and statistical techniques used, development of stock market, and the differences in socio-cultural and political-economic environment of the countries. Likewise, some scholars argue that social media are not reliable as they may manipulate or conceal important information and may deceive particularly immature retail investors (Kumari, 2019). In a similar vein, a study by Tetlock (2015) found that despite having a vast amount of information and knowledge, the investment decisions based on social media did not yield adequate returns on investors' investments. It is also noteworthy to state that some other variables such as quality of information, CSR news, corporate disclosure, and corporate post on social media as well as control variables such as age, gender, education, income-level of investors, and socio-economic situation of the country may also exert influence on investment decisions.

#### Conclusion

The analysis of findings demonstrates that online community behavior, corporate image on social media, content on social media, and overall aspects of social media have significant positive relationships with investment decisions. Thus, it can be inferred that investors in the Nepali stock market, along with technical or fundamental analysis, should also consider different aspects of social media while making investment decisions. However, it is the responsibility of investors to recognize the truthfulness of information obtained through social media platforms before making investment decisions. Besides, investors can limit risks using proven risk management techniques such as portfolio diversification, devising entry & exit criteria, and adhering to the past successful investment or trading strategies (Murphy, 2022).

This study few significant implications for specific groups of people. First, the findings of this study may facilitate the investment decisions of particularly the retail investors. Second, corporate managers may also consider floating their corporate social responsibility, financial performance and other important information on social media platforms and increase the firm's value by attracting potential investors. Third, policymakers and regulators may develop a web portal for investor education since heavy reliance on social media can be misleading for investors, particularly the immature retail investors. Since this study has used a close-ended questionnaire for data collection, future studies can use a mixed method by collecting data from both structured questionnaires and semi-structured interviews.

#### **Disclosure Statement**

The author of this article has no conflict of interest to declare.

#### Funding

I have received no funding for this article.

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