

Examining the Relationship between Social Media and Intention to Invest in an Investment Scams among Students

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Abstract: The advancement of social media platforms has enhanced communication sharing, interaction and information access. Importantly, the platforms become an integral part of the lives of today's students in updating themselves with current issues around the world and staying informed. Social media offers scammers opportunities to create fake profiles, leading to confusion between genuine investments and scams. However, alongside the benefits, social media also exposed students to deception such as being scammed. Students can be susceptible to falling prey to investment scams that offer high yields with low risk. Students must exercise caution online to avoid falling for fraudulent schemes. Vigilance in evaluating online content is crucial for their financial safety. Therefore, this study was conducted to examine the influence of social media on the intention to invest in investment scams among students. Data was collected among students at Universiti Teknologi MARA, Cawangan Negeri Sembilan. This study employed a quantitative method to collect primary data through an online questionnaire survey. The findings indicate a significant association between social media and intention to invest in investment scams. This study contributes to the existing literature on both social media and investment scam context and offers valuable insights to the policymakers, regulators and social media operators in combatting the fraudulent investment issue.

Keywords: *Investment Scams, Social Media, Intention to Invest.*

1. Introduction and Background

Social media refers to a digital means of communication, such as social networking websites and blogs, where users establish virtual communities to exchange information, ideas, personal messages, and various types of content, including videos (Krishna et al., 2022; Kumar & Nanda, 2022). The rapid growth and widespread adoption of social media platforms have significantly transformed the way people communicate, share information, and make decisions. With billions of users worldwide, social media has become an integral part of daily life, offering a multitude of opportunities for social interaction, networking, and access to diverse information sources (Sheth, 2018). In recent years, with the advancement of technology, investment scam has evolved from their traditional model into digitalized systems (Wang et al., 2021). The COVID-19 pandemic has brought about significant changes in social norms worldwide, providing fraudsters with opportunities to exploit available resources through various online fraudulent methods (Ma & McKinnon, 2022). This situation has opened avenues for fraudsters to employ creative techniques by leveraging online platforms and social media (Hakak et al., 2020). In the year 2019, 41.6% of students reported incurring financial losses after being targeted by scams. In contrast, among non-students, the percentage of individuals reporting losses was 28.3% (WMBFNews, 2019). In 2021, there was a notable trend indicating that Gen Xers, Millennials, and Gen Z young adults (ages 18-59) had a 34% higher likelihood than older adults (ages 60 and over) of reporting financial losses caused by fraudulent activities.

Younger adults were more than four times as likely as older adults to report losses associated with investment scams (US Federal Trade Commission, 2022). These indicate a higher susceptibility among young people to falling victim to scams and experiencing subsequent financial consequences. Consequently, the use of social media and the internet increases the probability of individuals, particularly the younger generation such as students, falling victim to investment scams. An investment scam is a fraudulent investment by offers the victims a low-risk and high-return investment scheme (Subramaniam et al., 2021). These scams often involve individuals or organizations presenting themselves as legitimate investment opportunities or financial advisors, promising high returns on investments while downplaying or concealing the associated risks (Cong et al., 2023). The younger generation especially university students is exposed to fall prey to investment scams because they often face financial pressures, including tuition fees, living expenses, and the

desire to have disposable income (Galanza et al., 2023). Furthermore, university students are highly active on social media platforms, which scammers exploit to target and influence their victims and make them more exposed to fraudulent investment advertisements (Yoro et al., 2023). Consequently, investment scam inflicts substantial financial losses on victims, which can have a ripple effect on the economy.

As a result, the affected individuals experience a reduction in wealth and purchasing power, leading to a decline in consumer spending and overall economic activity (Cong et al., 2023). In addition, Investment scams can hinder the government's efforts to enhance the nation's prosperity. Therefore, it is crucial to address and combat such fraudulent activities to safeguard the integrity of Malaysia's development initiatives and ensure the sustainable progress of the nation. There have been numerous studies on social media, but research examining the relationship between social media and intention to invest in investment scams among university students remains limited. Higher usage of social media among students should be taken into consideration. Establishing healthy boundaries, managing screen time, and being mindful of the content they consume and share online can help mitigate the adverse effects especially fraudulent investment (Yadav & Reddy, 2023). Therefore, the objective of this study is to investigate the extent to which social media usage patterns, such as the type of platforms and time spent on platforms influence university students' intention to invest in investment scams. By exploring the various dimensions of social media utilization, we aim to shed light on the specific mechanisms through which these platforms may affect individuals' susceptibility to fraudulent investment schemes. This study will provide valuable insights for policymakers, regulators, and practitioners to develop targeted interventions and educational initiatives to enhance financial literacy and protect investors.

2. Literature Review

Social media has emerged as a fresh platform for various entities, including individuals, influencers, entrepreneurs, corporations, and government agencies, to engage with one another. It serves as a means to exchange updates, disseminate information, promote products and services, and even showcase luxurious lifestyles (Nathanael et al., 2023). There are numerous social media platforms available today, including podcasts, blogs, forums, text messages, and video streaming (Barreto et al., 2017). With such a variety of platforms, social media has become a popular channel for promotion and marketing. It is an interactive digital medium that offers vast resources and connectivity, allowing it to exert a significant influence on people's behaviors and choices (Hanna et al., 2011). Social media has a lot of users and uses algorithms to control how people interact with the content they see. This means it can influence people's thoughts and feelings about current events, popular topics, and trends (Poliska, 2020). It has changed how we find information, do work, and communicate with others. Platforms like Twitter, WhatsApp, Facebook, and Instagram have billions of active users, and the numbers keep growing every day. Unfortunately, this also creates opportunities for criminals to connect with people and carry out scams (Subramaniam et al., 2021). Social media can provide information change opinions from others and affect people's thinking and lifestyle (Raut & Patil, 2016). However, Drahosoca and Balco (2017) highlight problems related to social media, especially in terms of security and information overload.

Some individuals or groups manipulate information on social media for their benefit (Nathanael et al., 2023). Undesirable users called spammers pose challenges for social media platforms by invading privacy, disrupting search results, and undermining the accuracy of data. Twitter is a target for spammers who use URLs, hashtags, and mentions. The existing anti-spam measures are not enough, raising concerns about the reliability of the data collected. Moreover, social media interfaces are easy to use but lack security, making them vulnerable to attacks by malicious users. Since social media relies heavily on user-generated content, these issues compromise the stability and quality of the data (Reda & Zellou, 2023). Scam websites use different tricks to get people's attention. They use social media, links in messages or emails, and even pictures to make people visit their fake websites. Some scammers pretend to be investment companies and advertise false investment opportunities on social media. They promise investments that are safe and will give high returns (Subburayan, 2023). To make their scams seem real, they create fake news articles and testimonials from happy customers. They even make a fake website for the investment company, with all the necessary information and papers.

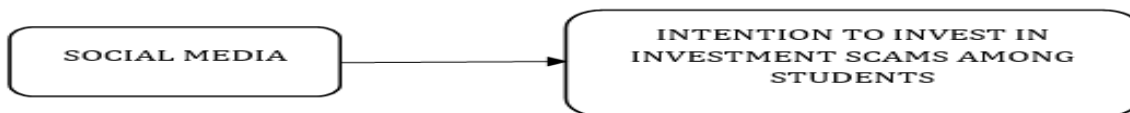
They offer free investment seminars to attract victims and use strong tactics to convince them to invest (Subburayan, 2023; Valencia et al., 2022). Studies show that young, unmarried women in their twenties are more likely to fall for investment scams. They are easily influenced by their friends and what they see on social media. Investment companies target them with tempting offers of big profits and quick money. Scammers take advantage of this vulnerability by recruiting more victims through pyramid schemes (Valencia et al., 2022). The occurrence of investment fraud is on the rise, involving the solicitation of investment opportunities in shares or securities that are either non-existent or worthless. According to the Australian Crime Commission (2012), investment fraud is a sophisticated form of organized crime that is carefully planned and can impact both experienced and inexperienced investors. It is not a random or opportunistic occurrence, contrary to common belief. Investment scams take advantage of the complicated and numerous legitimate investment programs out there. These scams attract people by making big promises of high or guaranteed profits on investments, usually without much risk (Financial Conduct Authority, 2022). Sometimes, they even offer investment products that don't exist or aren't authorized by regulatory bodies. Fraudsters trick potential investors by using social, economic, and cultural factors to their advantage (Chiluwa & Chiluwa, 2020).

Investment fraud is when people trick others into making investment decisions based on lies. To start such a scheme, it's important to create a network of people who will support it for a long time, even though it will eventually fail. Gaining trust from investors is a crucial element in maintaining the sustainability of this network (Prabowo, 2023). Investment scams and frauds often fall into a grey area where they may not always be considered criminal but can be seen as unethical or against regulations (Button & Cross, 2017). A study by Bar-Lev (2022) indicates that in most investment fraud cases, the victim is convinced to invest in something like shares, assets, or property that is promoted as having high potential for growth or great returns. However, these investments are worthless, overpriced, or even fake (Button & Cross, 2017). Contemporary investment scams manipulate individuals into investing their money in a supposed "investment" with the promise of financial gains (Dupuis et al., 2023; Lacey et al., 2020). These scams often involve fake investment brokers or traders who deceive investors. The deception can take different forms, such as the investment itself being non-existent or the legitimate broker, resulting in the investor losing their invested funds. Lacey et al. (2020) found that in more extreme cases, the scams may even provide investors with access to online broker portals or specialized software that visually displays the growth of their fictitious investment balance. Accordingly, it is hypothesized that:

H1: Social media is associated with the intention to invest in investment scams among students.

Conceptual Framework: The research framework proposes to identify the relationship between social media and the intention to invest in investment scams. Figure 1 shows the conceptual framework that proposes the relationship between social media and the intention to invest in investment scams.

Figure 1: Conceptual Framework



3. Research Methodology

Sample and Data Collection: In this study, a total of 147 students from Universiti Teknologi MARA Cawangan Negeri Sembilan participated as the respondents in answering the questionnaire. The respondents comprise degree and diploma students from three campuses: Kuala Pilah, Seremban and Rembau Campus. This study employed a quantitative method to collect primary data through an online questionnaire survey. The questionnaire was distributed to the respondents through a Google form. The questionnaire consists of three parts: Part A for demographic information, Part B for social media, and Part C for intention to invest in investment scams. The measurement scales were adapted from a combination of existing scales from the literature. A 5-point Likert scale ranging from "1 = strongly disagree" to "5= strongly agree" was used to record the responses from the respondents. The measurement for social media was adapted from Tanwar

and Kuma (2018), while the intention scales were adapted from Mazambani and Mutambara (2019). Statistical Package for Social Science (SPSS) version 28 was used to examine the data.

4. Results and Discussion

Demographic Profile of Respondents: Table 1 demonstrates the demographic details of students sampled for this study. A total of 147 students responded to the questionnaires which were usable for data analysis in this study. The respondents comprised 113 female and 34 male students respectively. 75 students are in the science and technology stream, and the remaining 72 students are in the science social stream. Most of the students (122) are pursuing diplomas and the remaining students are pursuing degrees. The students were asked how often they come across investment-related content on social media. The majority of the students answered multiple times a day (34%), a few times a week (27.9%) and the least once a day (10.2%). For time spent on social media, most of the students spend more than 4 hours (42.9%), followed by two to four hours (30.6%), one to two hours (21%) and the remainder are one hour and below.

Table 1: Respondents Profile

Respondents' Characteristics	Frequency	Percentage	
Gender	Male	34	23.1%
	Female	113	76.9%
Program	Science	75	51%
	Science Social	72	49%
Programme level	Diploma	122	83%
	Degree	25	17%
Advertisements on social media	Multiple times a day	50	34%
	Once a day	15	10.2%
	A few times a week	41	27.9%
	A few times a month	22	15%
	Rarely or never	19	12.9%
Time spent on social media	Less than 30 mins	2	1.4%
	30 mins – 1 hour	16	10.9%
	1 – 2 hours	21	14.3%
	2 – 4 hours	45	30.6%
	More than 4 hours	63	42.9%

Descriptive Statistics: Cronbach's Alpha was used to assess reliability in this research. The closer the Cronbach's Alpha value to 1.0, the higher the internal consistency reliability of the questionnaire. A questionnaire considers attaining a high level of reliability when the value of Cronbach's Alpha exceeds 0.70. The reliability and validity of a questionnaire are critical to ensure the measurement is carried out effectively and accurately on the intended concept (Sekaran & Bougie, 2016). Cronbach's Alpha value for all variables is above 0.7. The descriptive statistics computed the maximum, minimum, mean and standard deviation of the variables and the indicators. The mean for social media and intention are all above the average scale. All variables scored in the affirmative (1=strongly disagree, 5=strongly agree, with 3 the mid-point) with a mean value greater than 3. Social media has the highest mean score of 3.11, followed by intention with a mean of 3.02. Table 2 summarizes the descriptive statistics for the measurement items in the questionnaire.

Table 2: Descriptive Statistics

Variables	N	Cronbach's Alpha	Minimum	Maximum	Mean	Standard Deviation
Social media	147	0.960	2	5	3.11	0.610
Intention	147	0.786	1	5	3.02	0.550

Correlation analysis: Pearson correlation coefficient Correlation was employed to conduct a correlation analysis, aiming to assess the strength and direction of the relationship between social media and intention variables. The obtained results indicate a significant correlation between the two variables. Specifically, the

correlation between social media and intention is significant at a level of 0.619 ($p < 0.01$). Table 3 below summarizes the result of the correlation analysis.

Table 3: Correlation Analysis

Social Media		Intention
	Pearson Correlation	0.619*
	Sig (2-tailed)	0.000
	N	147

**Correlation is significant at the 0.01 level

Discussion: This study aims to investigate the relationship between social media and the intention to invest in investment scams. The findings indicate a significant relationship between social media and the intention to invest in investment scams. The findings are consistent with prior study by Subburayan (2023) and Valencia et al. (2022) on the tactics used by scammers in using social media to pose as legitimate investment firms, promoting fake opportunities that promise high and risk-free returns. This compelling evidence suggests that social media platforms play a crucial role in influencing students' inclination to participate in investment scams. Browsing social media assists students to obtain a vast amount of information, be it beneficial or non-beneficial. Fraudsters can use social media platforms to disseminate misleading advertisement, promote fraudulent schemes and often showcases success testimonies, which can influence students to get involved in fraudulent investments (Dupuis et al., 2023; Demertzis & Georgousi, 2023). Social media play an important role in disseminating information yet might be risky to the users if they are not able to differentiate the right or fake information. According to the survey done, the majority of the students spend more than four hours on social media which will expose them to the manipulation of the investment scams. The significant relationship observed between social media and investment scams highlights the need for increased attention to the potential risks associated with online investment opportunities.

5. Limitations and Recommendations

The present study was not without limitations and inspires some suggestions for future studies. In future studies, it is recommended to employ a mixed methods approach to gather data. Conducting interviews can be done with students to obtain comprehensive information, followed by administering questionnaires that consider the insights gained from the interview. Another limitation of this study pertains to the small sample size. This study focused on students from three campuses of Universiti Teknologi MARA Cawangan Negeri Sembilan only. To further validate the findings and obtain a greater substantiation of outcomes and generalizability, future research should include a larger sample size and involve respondents from various universities and colleges.

Conclusion: This study highlights the significant relationship between social media and the intention to invest in investment scams. Social media platforms provide scammers with avenues to manipulate and deceive individuals into fraudulent investment schemes. Scammers can easily create fake profiles, thus making it hard to differentiate between real investment opportunities and scams. Students should be mindful of the advertisements and content they encounter online to prevent becoming victims of investment scams. They need to be cautious about the information they come across on the internet. Notably, this issue requires all parties including social media platforms, regulatory authorities, regulatory authorities, law enforcement agencies, and cybersecurity experts to work closely in developing comprehensive strategies and policies that can effectively combat investment scams in the digital landscape.

References

- Australian Crime Commission. (2012). Serious and Organized Investment Fraud in Australia, Commonwealth of Australia, Canberra.
- Baby, A. & Shilpa, P. (2021). An Integrated Web-based Approach for Security Enhancement by Identification and Prevention of Scam Websites. In 2021 2nd International Conference on Advances in Computing,

- Communication, Embedded and Secure Systems. IEEE, 38-43.
- Bar-Lev, E., Maha, L. G. & Topliceanu, S. C. (2022). Financial fraud victim profiles in developing countries. *Frontiers in Psychology*, 13, 999053.
- Barreto, J. E. & Whitehair, C. L. (2017). Social media and web presence for patients and professionals: evolving trends and implications for practice. *PM&R*, 9(5), 98-105.
- Button, M. & Cross, C. (2017). *Cyber frauds, scams and their victims*. Taylor & Francis.
- Cong, L. W., Grauer, K., Rabetti, D. & Updegrave, H. (2023). *The Dark Side of Crypto and Web3: Crypto-Related Scams*. Available at SSRN 4358572.
- Demertzis, A. & Georgousi, F. (2023). *Social Media and Personal Finance*.
- Dupuis, D., Smith, D. & Gleason, K. (2023). Old frauds with a new sauce: digital assets and space transition. *Journal of Financial Crime*, 30(1), 205-220.
- Drahošová, M. & Balco, P. (2017). The analysis of advantages and disadvantages of the use of social media in the European Union. *Procedia Computer Science*, 109, 1005-1009.
- Federal Bureau of Investigation, Business and Investment Fraud. (2022). (Online). Available: <https://www.fbi.gov/scams-and-safety/common-scams-and-crimes/business-and-investment-fraud>.
- Financial Conduct Authority, "Cryptoasset investment scams. (2022). (Online). Available: <https://www.fca.org.uk/scamsmart/cryptoasset-investment-scams>.
- Galanza, M. A. M. C., Aruta, J. J. B. R., Mateo, N. J., Resurreccion, R. R. & Bernardo, A. B. (2023). Mental health of Filipino university students during the COVID-19 pandemic: The distinct associations of fear of COVID-19 and financial difficulties. *Educational and Developmental Psychologist*, 40(1), 125-130.
- Hakak, S., Khan, W. Z., Imran, M., Choo, K. K. R. & Shoaib, M. (2020). Have you been a victim of COVID-19-related cyber incidents? Survey, taxonomy, and mitigation strategies. *IEEE Access*, 8, 124134-124144.
- Chiluwa, M. & Chiluwa, I. (2020). We are a mutual fund: how Ponzi scheme operators in Nigeria apply indexical markers to shield deception and fraud on their websites. *Social semiotics*, 1(26).
- Kahupi, I., Yakovleva, N. & Chen, S. (2023). The significance of SDG16 "Strong institutions" toward the adoption of circular economy approaches for the artisanal and small-scale mining sector in sub-Saharan Africa. In *The Social Dimensions of the Circular Economy*, 171-200. Cham: Springer International Publishing.
- Kumar, V. & Nanda, P. (2022). Social media as a learning tool: A perspective on formal and informal learning. *International Journal of Educational Reform*, 10567879221094303.
- Krishna, S. H., Jayanthi, M., Ghosh, P., Tamrakar, A. K., Gopinathan, R. & Dagar, P. (2022). A study on positive and negative effects of social media on society. *International Journal of Early Childhood Special Education*, 14(5).
- Lacey, D., Goode, S., Pawada, J. & Gibson, D. (2020). The application of scam compliance models to investment fraud offending. *Journal of Criminological Research, Policy and Practice*.
- Ma, K. W. F. & McKinnon, T. (2022). COVID-19 and cyber fraud: Emerging threats during the pandemic. *Journal of Financial Crime*, 29(2), 433-446.
- Nathanael, G. K., Angeliawati, D. & Muhadjir, M. (2023). The power of social media to influence people in Indonesia: a case study of crazy rich scam and big data of election postponement. *JPPi (Jurnal Penelitian Pendidikan Indonesia)*, 9(1) 439-448.
- Prabowo, H. Y. (2023). When gullibility becomes us: exploring the cultural roots of Indonesians' susceptibility to investment fraud. *Journal of Financial Crime*, (ahead-of-print).
- Raut, V. & Patil, P. (2016). Use of Social Media in Education: Positive and Negative impact on the students. *International Journal on Recent and Innovation Trends in Computing and Communication*, 4(1), 281-285.
- Reda, O. & Zellou, A. (2023). Assessing the quality of social media data: a systematic literature review. *Bulletin of Electrical Engineering and Informatics*, 12(2), 1115-1126.
- Sekaran, U. & Bougie, R. (2016). *Research Methods for Business: A Skill-Building Approach*. 7th Edition, Wiley & Sons, West Sussex.
- Subburayan, B. (2023). Case Study on Social Media Scam Artists Prey on India's Amateur Investors. *Finance Educator: Courses, Cases & Teaching eJournal*.
- Subramanian, N., Shobana, G., Bushra, S. N. & Maheswari, K. U. (2021, December). A way to explore SMS: Social Media Scams for a secure Digi-world. In *2021 5th International Conference on Electronics,*

- Communication and Aerospace Technology (ICECA), 647.
- Sheth, J. N. (2018). How social media will impact marketing media. *Social media marketing: Emerging concepts and applications*, 3-18.
- Udeagha, M. C. & Muchapondwa, E. (2023). Green finance, fintech, and environmental sustainability: fresh policy insights from the BRICS nations. *International Journal of Sustainable Development & World Ecology*, 1-17.
- US Federal Trade Commission. (2022). Who experiences scams? A story for all ages. <https://www.ftc.gov/news-events/data-visualizations/data-spotlight/2022/12/who-experiences-scams-story-all-ages>
- Valencia, S. J. D., Cabuang, K. K. L. S., Millare, A. A., Reyes, A. C., Orlanda, M. M. & Pascual, M. P. (2022). Experiences of Novo Ecijanos who were Scammed by Investment Companies. *International Journal of Advanced Engineering, Management and Science*, 8(3).
- Wang, L., Cheng, H., Zheng, Z., Yang, A. & Zhu, X. (2021). Ponzi scheme detection via oversampling-based Long Short-Term Memory for smart contracts. *Knowledge-Based Systems*, 228, 107312.
- WMBFNews. (2019). Better Business Bureau says scams targeting college students are on the rise. <https://www.wmbfnews.com/2019/08/29/better-business-bureau-says-scams-targeting-college-students-are-rise/>
- Yadav, K. K. & Reddy, L. J. (2023). PSYCHOLOGICAL EFFECTS OF TECHNOLOGY ON COLLEGE STUDENTS. *Journal of Clinical Otorhinolaryngology, Head, and Neck Surgery*, 27(1), 1805-1816.
- Yoro, R. E., Aghware, F. O., Malasowe, B. O., Nwankwo, O. & Ojugo, A. A. (2023). Assessing contributor features to phishing susceptibility amongst students of petroleum resources varsity in Nigeria. *International Journal of Electrical and Computer Engineering*, 13(2), 1922.