

The Effects of Advertisements on Influencing Decisions to Invest in Riskier Financial Assets

Winston Honadi, Jeremy Christo Johan

Sampoerna University, Jakarta, Indonesia

ABSTRACT

Objective – This research’s main purpose is to discover whether psychological and social factors have a significant effect on a person’s attitudes toward advertisement, ultimately affecting their investment decisions.

Methodology – This research utilized GOTO Stockbit’s advertisement and was distributed to the public Indonesian population who has an interest in investment. The research collected a total of 115 samples which were then filtered to only include those who had experience investing to test the possibility of investing in a riskier financial asset.

Findings – The research results show that psychological factors had no significant effects on attitudes toward advertisements. However, social factor has a significant enough effect on attitudes toward advertisement, as do attitudes toward advertisement toward investment decision.

Conclusion – The study results that social factors lead to a positive attitude toward advertisements from securities that motivate individuals to make an investment decision. However, this study’s results show that psychological factors do not lead to any investment decisions by individuals as it has little to no effect on their attitude toward advertisements.

Novelty – This research aims to measure the effectivity of security advertisements on the investment decisions of individuals by adding a new study goal by introducing new hypotheses involving psychological and social factors to add clarity to previous research covering investment decisions. This research hopes that security brokerage can make an effective and optimal advertisement suggested in the research.

Keywords: *advertisement, financial assets, investment decisions*

JEL Classification: M37, M51, E22

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Article Correspondence: winston.honadi@my.sampoernauniversity.ac.id;

jeremy.johan@my.sampoernauniversity.ac.id

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I. INTRODUCTION

Advertisements are known to promote products and services, which increases awareness and revenue from the products and services through the use of various media (Domazet et al., 2017). It also applies to securities firms when they advertise their services to encourage people to purchase financial assets through them (Srinivasan, 2009). Financial assets are a security that holds claims on an individual’s ownership of a certain asset. Stocks, bonds, and mutual funds can be deemed financial assets. Despite such financial assets being regulated by institutions to avoid the misuse of firms to promote them, securities firms can promote their services through other aspects. Pallavi and Sharma (2018) mentioned that the financial industry promotes their services through displays, discounts, attractive offers, celebrity endorsements, and other

various means. Individuals' decisions on using the services of the securities firm depend on the stated promotions.

Various studies in different contexts have been conducted to explore the topic of online advertisements and how they affect customer behavior (Celebi, 2015; Odunsi, 2020; Tobi et al., 2020). Misleading and fraudulent messages from advertisements have also become an issue customers notice when it comes to online promotions, which may lead to potential consumers losing interest in the advertised products (McQuarrie et al., 2015, Pallavi & Sharma, 2018). These variables may also affect consumers' behavior toward non-investor individuals who want to start investing. Other variables influencing potential consumers' behavior include social and psychological factors (Fathin & Hersugondo, 2022). Thus, online advertising, social, and psychological factors may affect non-investor individuals' behaviors toward investing.

Despite the lack of information on the influence of advertisements on people's decisions toward risky financial assets, we would like to conduct further research on the topic. Our research will utilize Stockbit's advertisement to promote their service through GOTO stock as a financial asset. Stockbit is a well-known Indonesian securities firm or stock brokerage and a social media platform for Indonesian investors to discuss stock-related topics. Meanwhile, GoTo, known as PT GoTo Gojek Tokopedia, Tbk., is an Indonesian holding company that was a result of the merging of Gojek, an online transportation service similar to Uber and Grab, and Tokopedia, an e-commerce company. Owning such a well-known company, whose services most individuals in Indonesia use, is an interesting offer.

This research will focus on the interests of customers in investing and their willingness to invest in risky financial assets. This research will also observe the behavior of non-investor individuals after watching the advertisement to see how it affects their decision to invest. This research's main goal is to identify the factors that would affect customers' attitudes toward advertisements regarding financial services, and whether or not it will ultimately impact customers' investment decisions. The research will mainly provide insights for advertising and financial companies and act as a reference for future ad-making.

II. LITERATURE REVIEW

Psychological Factors

Psychological factors also have effects on attitudes toward advertisements. Attitude can be viewed through consumer behavior in which consumers go through internal influences such as perception, learning, memory, motives, personality, emotions, and attitudes (Hawkins & Mothersbaugh, 2010). They also added that consumer decision goes through the behavior process of exposure, attention, interpretation, memory, and decision. Another study mentions how different attitudes and skepticism affect individual behaviors through advertisements in which a positive attitude and persuasion knowledge have a larger role in compulsive buying (Mikołajczak-Degrauwe & Brengman, 2014). They also added that individuals with higher persuasion knowledge tend to have less positive attitudes toward advertising. Based on the statements depicted above, hypothesis 1 of the study is:

H₁: Psychological factors have a positive relationship with attitudes toward advertisements.

Social Factors

Other than psychological factors, social factors are also involved in consumer behavior. Social communication proves to have a positive relationship with individual behaviors which individuals tend to feel accepted and respond to social media marketing (Zeng et al., 2017). Furthermore, individual behavior can be seen to be influenced based on a certain group's intention (Pangaribuan et al., 2021). Hence, both psychological and social factors have a positive relationship with attitudes toward advertisements. Thus, hypothesis 2 for this study is:

H₂: Social factors have a positive relationship with the attitudes toward the advertisements.

How Attitudes Toward Advertising Can Affect Investing Decisions

In many different contexts, advertisements have been the first media for consumers to gain knowledge about a certain product in the market (Sama, 2019). In the financial industry, advertisements are also utilized to communicate, give knowledge, and convince investors of the services and benefits a company provides (Lee, 2011). Pallavi and Sharma (2018) studied how different advertising approaches may affect investors' buying decisions. The research shows that advertisements with an emotional approach induce feelings of fear and insecurity toward investing, while advertisements with a rational approach result in feelings of motivation and encouragement toward investing. Another study found that investors' decisions can be affected by how clear and transparent an advertisement is about the possible risks involved in using their services (Dogra et al., 2023). Therefore, the third hypothesis is:

H₃: Attitudes toward advertisements have a positive relationship with investment decisions.

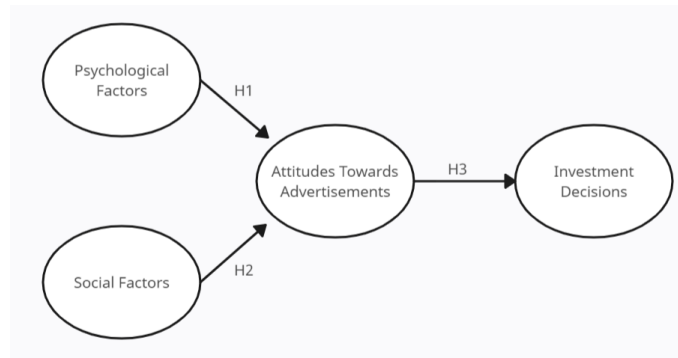


Fig. 1. Framework Model of this Study

As seen in Figure 1, this study's framework model utilizes 2 independent variables, namely Psychological Factors (PF) and Social Factors (SF). There are also 2 dependent variables that exist within this framework that will be influenced by the independent variables which are Attitudes Toward Advertisements (ATA) and Investment Decisions (ID).

III. METHODOLOGY

Sampling Method

The study utilizes Google Forms as a platform for the survey. Before the real survey was distributed further, preliminary test surveys were distributed to 3 peers to make sure the survey did not contain any ambiguous or confusing statements. It is then distributed through Indonesian public communities and is filled with public interest in investments. The procedures used to have an appropriate sample size are determined through the formula of $50+8m$, in which "m" is measured through the number of independent variables used in the research framework (Green, 1991). In this study, the independent variables used in the research framework is 2 which are psychological and social factors. Therefore, with the formula of $50+8(2)$, the appropriate sample size will be 66. The total number of respondents in the study is 115 making it an appropriate amount. Furthermore, the data from this study can be supported through the use of " $\alpha = 0.05$ and $\beta = 0.20$ " for a medium-sized relationship between the dependent and independent variables (Fidell & Tabachnick, 2014).

Measurement Scale

This research survey will utilize Likert's 5-scale to determine the degree of agreement of our respondents. The Likert 5-scale will be represented through 5 points which are strongly disagree, disagree, neutral (neither disagree nor agree), agree, and strongly agree.

Table 1. Survey Items

Construct	Code	Original Survey Items	Adapted Survey Items
Psychological Factors	PF1	When I'm excited, I manage many things	I am able to do lots of things in a happy mood.
	PF2	I have a peaceful demeanor	Despite having less patience, I can handle it as soon as possible
	PF3	Knowledge and expertise, rather than luck, are the essential prerequisites for success in the stock market.	In my opinion, knowledge and skill, compared to luck, is an important way to make a fortune in the capital market
	PF4	My ability to observe is increased when I am satisfied	After feeling satisfied, my ability to observe increases
	PF5	I let my frustration and annoyance come through	I have the habit of easily releasing frustration and annoyance
	PF6	I believe that I cannot get over my anxiety	In my opinion, investing in the stock market can cause discomfort
Social Factors	SF7	I believe that I am not as content as other people appear to be	I believe that I cannot be as satisfied as other people
	SF8	I believe my problems outweigh those of others	I believe my problems are bigger than other people's
	SF9	If there were numerous "buy" orders placed on the equities at the start of the trading session, I would like to purchase them	If I invest in stocks, when I see there are many people "buying" at the start of the trading session, I also want to buy it
	SF10	If I saw a large number of people leaving the stock, I would like to sell it	If there were numerous "sell" orders placed on the equities at the start of the trading session, I would like to sell them
	SF11	Usually, when I want something, I will do anything to obtain it	Usually, when I want something, I will do anything to get it
	SF12	I frequently make quick decisions	I frequently make quick decisions
Attitude toward the Advertisement	ATA13	Scale measurement (scaling from 1-7) where 1 is uninformative and 7 is informative	After watching the video, I feel that the investment advertisement is informative
	ATA14	Scale measurement (scaling from 1-7) where 1 is unattractive and 7 is attractive	After watching the video, I feel that the investment advertisement is interesting
	ATA15	Scale measurement (scaling from 1-7) where 1 is unbelievable and 7 is believable	After watching the video, I feel that the investment advertisement can be trusted
	ATA16	Scale measurement (scaling from 1-7) where 1 is unconvincing and 7 is convincing	After watching the video, I feel that the investment advertisement is convincing
	ATA17	Scale measurement (scaling from 1-7) where 1 is the respondent's overall disliking and 7 is the respondent's overall liking	After watching the video, I feel that I like the investment advertisement
Investment Decisions	ID18	I think the stocks are hazardous	I feel that investing in stocks has a higher sense of risk
	ID19	The idea of investing in the stock market makes many feels anxious	The idea of investing in the capital market makes me anxious
	ID20	My stock investment has a very high level of safety	I feel that investing in stocks has a higher sense of security
	ID21	Compared to the market as a whole, my investment is more risk-averse	Compared to the entire market, investing in GOTO will be less risky

	ID22	Compared to other investments, mine provides me more dividends	I feel that other stocks will be more beneficial instead of investing in GOTO
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Survey Items

As seen in Table 1, the survey items conducted will assess the dependent and independent variables' validity and significance. Using past research items, this research adopted a total of 22 items to support our analysis and represent 2 independent variables; Psychological Factors and Social Factors, and 2 dependent variables; Attitudes Toward Advertisement and Investment Decisions. The 22 items adopted include 6 Psychological Factor items, 6 Social Factor items, and 5 Investment Decisions items adapted from "The Role of Psychological and Social Factors on Investment Decisions of Retail Investors in Indonesia Stock Exchange" (Fathin & Hersugondo, 2022), and 5 Attitude Toward Advertisement items adapted from "A cross-country investigation of recall of and attitude toward comparative advertising" (Donthu, 1998). The research will be distributed through a Google Forms questionnaire link and will be filled in independently by the respondents. The 22 items of this research adapted from previous research and the original survey items along with the original author, translated into English, are shown in Table 1.

Respondent's Demographic Profile

As seen in Table 2, this study has a demographic profile of the survey respondents in which the respondents mainly consist of young adults with ages ranging from 17 to 30, making a total of 90.4% (104 respondents) out of 115 total respondents. There is also a majority of women respondents which take up to 65.8% (76 respondents) responding to our survey. More than half of our respondents also haven't seen more than 1 hour of advertisement weekly. Those who have had experience investing take up to 65.8% of our total respondents (76 respondents), and 70.4% of our respondents have had education about investing before responding to the questionnaire (81 people). Out of the total of 115 respondents, only responses from those who have already invested will be used for data analysis, which takes up to 65.8% of our total respondents (76 respondents).

Table 2. Respondent's Demographic Profile

Category	Description	Frequency	Percentage
Age	Under 17	4	3.5%
	17-20	46	40.0%
	21-30	58	50.4%
	31-40	2	1.8%
	41-50	5	4.3%
	51-60	0	0.0%
	Above 60	0	0.0%
Gender	Male	39	34.2%
	Female	76	65.8%
Frequency to Watch Advertisement (Weekly)	<1 hour	57	49.6%
	1 hour	26	22.6%
	2 hours	16	13.9%
	3 hours	4	3.5%
	>3 hours	12	10.4%
Experience in Investment	Have Invested	76	65.8%
	Have Not Invested	39	34.2%
Education in Investment	Have Learnt	81	70.4%
	Have Not Learnt	34	29.6%

Reason(s) for Choosing Likert's 5-scale

Likert's 5-scale is chosen to ease the determination of respondent's agreement with the survey items, while also easing data collection and interpretation of the response. It is more user-friendly and efficient, making it easier to complete. The use of the Likert's 5-scale is recommended to minimize respondents' frustration, and also to increase the completion rate and quality of the survey responses (Sachdev & Verma, 2004). The Likert's 5-scale also eases data interpretation due to its simple scale descriptors (Dawes, 2008).

IV. RESULTS AND DISCUSSION

Indicator Loadings

The data from the research is collected through a Google questionnaire survey form. This research utilizes the SmartPLS 3.0 software to conduct a Partial Least Square (PLS) data analysis of the research model.

Table 3. Indicator Loadings

Decision	Indicator	First Test	Final Test
Psychological Factors	PF1 ^R	0.195	
	PF2 ^R	0.480	
	PF3 ^R	0.034	
	PF4	0.648	0.671
	PF5	0.809	0.830
	PF6	0.616	0.660
Social Factors	SF7	0.722	0.738
	SF8	0.724	0.727
	SF9	0.837	0.859
	SF10	0.797	0.811
	SF11	0.696	0.677
	SF12 ^R	0.452 ^R	
Attitude toward the Advertisement	ATA13	0.831	0.821
	ATA14	0.841	0.849
	ATA15	0.88	0.875
	ATA16	0.875	0.872
	ATA17	0.802	0.815
	Investment Decisions	ID18 ^R	0.064 ^R
ID19 ^R		0.421 ^R	
ID20		0.713	0.761
ID21		0.807	0.879
ID22 ^R		0.471 ^R	

R=Items which have outer loadings of less than 0.5 were removed

According to Table 3, the indicator loading of several variables has a value that is greater than 0.5 and several other variables that has a value less than 0.5. While it is recommended for the value to be greater than 0.7, variables with a value greater than 0.5 are reliable for empirical research, and variables with a value less than 0.5 will be omitted (Purwanto & Sudargini, 2021).

Reliability and Validity Tests

According to Table 4, the SmartPLS output gives the composite reliability value results to be greater than 0.7 which is greater than the value of the Cronbach's alpha. The alpha values of each variable can be seen to exceed the value of 0.5. A value of the Cronbach alpha that is less than 0.5 is considered less reliable,

while a value of greater than 0.5 to 0.8 is considered moderately reliable or acceptable, and a value greater than 0.8 is highly reliable (Ekolu & Quainoo, 2019).

Table 4. Assessment of the Measurement Model

Construct	Items	Outer Loadings	Alpha	CR	AVE	Notes
Psychological Factors	PF4	0.671	0.551	0.766	0.525	Valid
	PF5	0.830				
	PF6	0.660				
Social Factors	SF7	0.738	0.823	0.875	0.585	Valid
	SF8	0.727				
	SF9	0.859				
	SF10	0.811				
	SF11	0.677				
Attitude toward the Advertisement	ATA13	0.821	0.901	0.927	0.717	Valid
	ATA14	0.849				
	ATA15	0.875				
	ATA16	0.872				
	ATA17	0.815				
Investment Decisions	ID20	0.761	0.529	0.806	0.676	Valid
	ID21	0.879				

Collinearity Test

A collinearity test was done using the PLS algorithm calculator in SmartPLS 3 Software. The collinearity test results are shown in Table 5. A Variance Inflation Factor (VIF) value of less than 5 suggests that the independent variable of this research is not highly related to any of the remaining independent variables in the framework model (Dormann et al., 2013). This finding suggests that the model has no multicollinearity.

Table 5. Collinearity Test

	PF	SF	AAd	ID
Psychological Factors			1.184	
Social Factors			1.184	
Attitude toward the Advertisement				1.000
Investment Decision				

Model Summary (R^2)

This research utilizes the PLS algorithm calculator in SmartPLS 3 software. Table 6 shows the Model Summary R^2 of this research. The R^2 figure provides an objective assessment of the quality of fit of a given model, a metric that cannot be acquired by using data criteria. This data summary shows to which extent the variable affects the results (Nakagawa & Schielzeth, 2013).

Table 6. Model Summary (R^2)

	R^2	R^2 Adjusted
Attitude toward the Advertisement	0.376	0.365
Investment Decision	0.277	0.251

Hypothesis Testing

After testing with the bootstrapping method in SmartPLS3 with an error rate of 0.05, Attitude Toward Advertisement has a significant effect on Investment Decisions with a P value of 0.001. Social Factor significantly affects Attitudes toward Advertisement with a P value of 0.013. However, Psychological Factor has a non-significant effect on Attitudes toward Advertisement with a P value of 0.148. The complete hypothesis testing result can be seen in Table 7.

Table 7. Result of Hypothesis Testing

Hypothesis	Relationship	Original Sample	Sample Mean	Standard Deviation	t Statistics	P Values
H1	PF \rightarrow ATA	0.231	0.263	0.155	1.484	0.139
H2	SF \rightarrow ATA	0.391	0.400	0.148	2.648	0.008
H3	ATA \rightarrow ID	0.613	0.622	0.102	6.005	0.001

Discussion

The data of the research is reliable and shows validity after omitting several variables that give outer loading value results that is below 0.5. The survey items of attitude toward advertisement do not require any exclusion due to their validity. However, other survey items from other variables such as psychological factors, social factors, and investment decisions require exclusion to be valid. The data is also supported by a Cronbach's alpha value of greater than 0.5 which indicates a moderate reliability or an acceptable value.

Within the framework of psychological and social factors, the R-squared (R^2) coefficient of determination of 0.376, shows that 37.6% of the variability of psychological and social factors can be accounted for attitudes toward advertisements. The stronger the R^2 value, the more significant the correspondence of the model. The R^2 value shows that psychological and social factors are not significant in their effect on attitudes toward advertisement as there are 62.4% of other factors that are not taken into account. Hence, there are other factors that actually influence individual attitudes toward advertisements other than psychological and social factors including its variables.

Additionally, the R^2 coefficient of determination of attitude toward advertisements shows that 0.277 of the variability of 27.7% can be accounted for investment decisions. As the R^2 value is weaker, attitude toward advertisements does not show significance for the correspondence of the model. Additionally, 72.3% of other factors are not taken into account in the relationship between attitude toward advertisements and investment decisions. Hence, there are other factors that influence individual investment decisions other than the attitude toward advertisements including its variables.

The results of the R^2 coefficient of determination indicate the study is less reliable due to the data showing that other factors that are not taken into account influence the variables. However, other tests in the study prove the reliability of the research from the hypothesis testing as several variables involved have a positive relationship with one another.

Psychological factors, despite being an important factor in an individual's decision-making, are proven in the study to not have significance on attitude toward advertisements. The hypothesis testing of the relationship of psychological factors to attitudes toward advertisements gives a value of 0.139 with a significance of 0.05 which rejects the hypothesis. The data result in this study pales in comparison to an existing study that psychological factors including mood, anger, and fear have a positive relationship with investment decisions (Fathin & Hersugondo, 2022). The increased awareness of the advertisement's persuasion tactics and higher skepticism levels toward GOTO Stockbit may have affected respondents' faith, resulting in psychological factors to less likely be present when viewing the advertisement (Mikolajczak-Degrauwe & Brengman, 2014). Therefore, it is concluded that psychological factors have no relationship to attitudes toward advertisements.

Social factors, on the other hand, are shown to have significance on attitudes toward advertisements. It can be seen that the hypothesis testing the relationship between social factors and attitude toward advertisement gives a value of 0.008 with a significance level of 0.05 which indicates that the hypothesis is acceptable. It is also supported further that there is a positive relationship between investment decisions with social factors that include social interaction, herd behavior, and stress (Fathin & Hersugondo, 2022). Social factors prove to be a significant factor compared to psychological factors in terms of their relationship with attitude toward advertisements due to various reasons. The reasons are due to security reasons and the fear of missing out (Milas & Lesinger 2021). Therefore, it is concluded that social factors have a positive relationship with attitudes toward advertisements.

Furthermore, attitude toward advertisements has shown a strong significance to investment decisions. Studies highlight that a positive attitude toward advertisements will result in the likeliness of an individual to make a purchase. In this study, this indicates the likeliness for individuals to be more likely to invest due to the influence of their attitude toward advertisements. The hypothesis testing of the relationship of attitude toward advertisements to investment decisions gives a value of 0.001 with a significance of 0.05 which strongly accepts the hypothesis. The strong significance that is shown in the relationship between attitude toward advertisements and investment decisions is due to various reasons. Involving the other factors that affect attitude advertisements, a positive attitude toward advertisements will lead to the motivation for individuals to make an investment decision. However, a negative attitude toward advertisements leads to demotivated individuals who tend to not make an investment decision.

It is concluded that the study can be improved by taking into account other external factors that influence the variables. However, the data of the research has shown its validity and reliability through the omission of several survey items from several variables. Moreover, social factors have a significant impact on this study through its relationship with attitudes toward advertisement. It is also supported that attitude toward advertisements is strongly significant with its relationship with investment decisions. Hence, the hypothesis that social factors have a positive relationship with attitude toward advertisement and attitude toward advertisement has a positive relationship with investment decisions is accepted. The hypothesis that psychological factors have a positive relationship with attitude toward advertisements is rejected.

V. CONCLUSION

Theoretical Implications

This study shows that psychological factors do not give a significant enough result to affect attitudes toward advertisements which in comparison to a study made by Fathin and Hersugondo (2022) proves that psychological factors have a positive influence on investment decisions. This could be the result of the respondents' higher knowledge of the advertisement's persuasive strategy, resulting in higher levels of skepticism. This high level of skepticism can lead to a lower trust rate from the respondents toward the GOTO Stockbit, resulting in fewer psychological factors taking effect in the attitudes toward advertisement (Mikołajczak-Degrauwe & Brengman, 2014). Social factors give a significant enough result to affect attitudes toward advertisements which is in line with a similar research done by Fathin and Hersugondo (2022). It is also supported by another study that social factors including security reasons and the fear of missing out are involved in the action to attitudes toward advertisements. Attitudes toward advertisements give a significant enough result to affect investment decisions which is in line with a similar research done by Pallavi and Sharma (2018). The relationship between attitudes toward advertisements and investment decisions can be seen to have a correlation as a positive or negative attitude toward advertisements leads to an investment decision or not as supported by either psychological or social factors.

Managerial Implications

Customers' social connection creates a significant impact on their attitudes toward advertisements, and ultimately their investment decisions. A certain social connection toward the securities brokerage or the company of the stock can bring a positive influence. A good company will have a positive customer social connection which then brings customers to have a good attitude toward advertisement and leads to investment decisions. Social testimonies may improve customers' likeliness to purchase a stock. Social testimonies can be another variable that may affect the attitude toward advertisements of customers. It gives reassurance to customers to finally make a decision to purchase. Advertisements need to create positive memories and impressions for watchers to increase the likeliness of purchasing a certain financial asset. Financial asset-related advertisements by securities should use mature business stocks and not startup stocks due to unlikeliness. Mature businesses tend to be more of a desirable investment due to having dividends being given out to shareholders, holding a competitive advantage, and a good reputation. However, startups have a history of not working out which gives consumers skepticism. That skepticism leads to a fear that the stock of a startup company will be delisted for bankruptcy. Therefore, mature business stocks are a better option to be used for securities advertisements.

Limitations and Future Research

The limitations of this research only utilizes 1 advertisement from Stockbit with GOTO as a risky financial asset which may result in different emotional results from other investment advertisements. Moreover, this research was conducted through an online community form distribution without any specific demographic information from the respondents. Therefore, might not reach definitive and conclusive findings.

This research can be improved in future research through the distribution of the survey to specific investors and investor groups in a specific area to gather more accurate results. Other than that, finding advertising experts to give better assessments of the psychological and social factors that might affect customers. Moreover, the research can also be improved by utilizing more than 1 advertisement to see whether different types of advertisements might generate differing results. The research can also be improved by taking into account other variables that may affect the attitude toward advertisements that can lead to investment decisions.

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