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Beyond age stereotypes: Unveiling the investment intentions of young individuals during the COVID-19 pandemic

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ABSTRACT

This study examines personality traits, financial literacy, and risk tolerance for investment intentions. In addition, this study also examines the role of risk tolerance as a mediator in the influence of personality traits on investment intentions. A quantitative research method is used to measure personality traits, financial literacy, risk tolerance, and investment intention. A survey was conducted among young individuals in Indonesia. Respondents came from various regions in Indonesia, especially those from Java, Indonesia. The number of samples was 405 questionnaires. The results show that several personality traits, such as extraversion, neuroticism, and openness, affect investment intentions. However, the results show conscientiousness and agreeableness do not affect investment intentions. Researchers have found that extraversion and conscientiousness do not affect risk tolerance, but neuroticism, openness, and agreeableness do. Financial literacy and risk tolerance are also proven to affect investment intentions. When the mediation effect was tested, it was found that neuroticism, openness, and agreeableness affect investment intentions. On the other hand, risk tolerance does not act as a mediator variable between extraversion and investment intention. The practical implication of the study lies in assisting stock exchanges in developing countries to craft effective strategies for attracting Generation Z and Alpha investors, particularly during periods of economic volatility.

Contribution/Originality: This study delves into the investment decisions of Generation Z and Alpha in COVID-19-era Indonesia, offering a fresh perspective by exploring how individual traits impact choices during economic challenges. It's valuable for developing nations and stock exchange agencies, providing insights for crafting crisis-oriented investment strategies based on human traits.

1. INTRODUCTION

The coronavirus pandemic is a sudden outbreak that has destroyed almost all stock markets worldwide, including the Indonesian stock market. During and after the COVID-19 pandemic, the situation and condition of a country's economy have become increasingly uncertain. The COVID-19 pandemic does not discriminate based on our country of origin. As a virus that spreads indiscriminately, COVID-19 pandemic disregards national borders. Prior to the onset of COVID-19 pandemic, global citizens enjoyed unrestricted freedom to move, work, and travel. However, the COVID-19 pandemic has rapidly changed everything, slowing down our lives and introducing unprecedented global uncertainty. The threat posed by the COVID-19 pandemic is very real. Fear permeates

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various aspects, including health, economy, social interactions, cognition, and even the digital realm. Health is the primary vulnerability, with thousands of people being infected and dying. Additionally, the rampant economic impact, such as business closures, mass layoffs, and a sluggish economy, has caused deep concerns. However, not all people across the world have faced such a severe event before. Have they prepared themselves to face a pandemic of this magnitude? This question arises because the Corona pandemic has forced communities to drastically alter their way of life. Many individuals have had to learn to work from home, rely on digital technology, and adopt stricter hygiene practices. For those who are unaccustomed to such situations, this adjustment may present its own challenges (Calzada, 2023). This prevailing uncertainty has resulted in the population experiencing significant financial challenges (Reijers, Orgad, & De Filippi, 2023). The coronavirus first entered Indonesia on March 15, 2020. The quick response to avoid this outbreak is to force governments in every country to close essential places such as schools, markets, factories, and supply chain contributors. This response's results certainly impact many sectors, including the economic sector (Tashanova et al., 2020).

Based on the Indonesian Statistical Center, several moments caused the stock market to fall. There were at least three conditions, namely the 1998 Crisis, the 2000 Bali Bombing, and the corona virus pandemic condition. Each period in these three conditions involves a different generation. The interesting thing to study is the growth in the number of investors when this moment occurs. During the 1998 crisis and the 2000 Bali bomb crisis, the number of investors declined (Nursiam & Puteranto, 2017). However, during the coronavirus pandemic, there was a difference from the previous conditions, where during the coronavirus pandemic, the number of investors increased. Market conditions can have an impact on investor sentiment. Rapid and unexpected shifts in the market can lead investors to modify their beliefs and perspectives. Notable examples of such abrupt changes are the stock market crash in 2008 and the COVID-19 pandemic, both of which had a significant emotional impact on investors (Makarenko, Bilan, Streimikiene, & Rybina, 2023). Moreover, the contributors to the increase in investors come from the young generation Z and Alpha.

During the COVID-19 pandemic, young generations are experiencing the COVID-19 crisis as their first significant challenge in life, thus lacking prior experience in dealing with similar situations. The impact of this pandemic extends beyond their physical and mental health, as it also affects their economic livelihood. These generations feel insecure in an unstable economic environment and often experience anxiety about managing their finances wisely. Due to the uncertain circumstances and the lack of previous experience in facing such a crisis, Generations Y and Z feel confused and need clear guidance to overcome their challenges. Furthermore, individuals affected by COVID-19 must undergo quarantine to prevent the spread of the virus. This quarantine often leads to deep feelings of loneliness and boredom. To combat boredom, Generations Y and Z have started seeking new activities to fill their free time. They have begun exploring new interests and hobbies, such as learning new skills, taking online courses, or developing expertise in specific fields. Boredom and insecurity in an uncertain economic climate have also brought about behavioral changes in these generations. They tend to become more innovative and adaptive, seeking new opportunities to earn money. These behavioral changes are driven by the need to survive during challenging times and the desire to transform their way of life and find fulfilment in pursuing something they love (Koch, Frommeyer, & Schewe, 2020).

This response has dramatically impacted the performance of the Indonesian Composite Stock Price Index. It was noted that on March 23, 2020, the Jakarta Composite Index (JCI) experienced a significant decline. On March 13, 2020, the stock index strengthened to 4907.57, but on March 20, 2020, the stock index weakened to 3,931.73, the lowest since June 2012. Furthermore, one year later, on March 15, 2021, the JCI was already at position 6324.26 (Indonesia-investments.com, 2020). The increase in the JCI was supported by the trade sector, which impacted the Indonesian economy, and the emergence of new investors from the Millennial generation and below, such as Generation Z and Alpha. From a broader perspective of population dynamics, it can be observed that the COVID-19 pandemic has resulted in notable transformations in both experiences and behaviors among individuals

(Bignami, Calzada, Hanakata, & Tomasello, 2023; Hanakata & Bignami, 2023). They are identical to being sensitive to information, which makes them more unstable in taking action and not ready to be under enormous pressure. In large numbers, new investors have also emerged (Campbell, 2006; Celerier, Vallee, & Calvet, 2017; Lusardi & Mitchell, 2011).

In 2020, the Indonesian Central Securities Depository explained that from 2018 to 2020, there had been an increase in the number of investors, especially those aged less than 30 years. Students dominate this number, contributing 27.21% of total investors in 2020. In 2021, the number of investors aged less than 30 years will increase to 60.02%. In Indonesia, Gen Z is 74.93 million people or 27.94% of the total population, followed by the millennial generation with a total of 69.38 million (25.87%) (Investor.id, 2021). The number of new investors aged 18-25 years in 2020. This result means an additional investor of 280,569 people, or 48.7% of the total new investors. Based on this data, the researchers predict that the increase in the number of Generation Z and Alpha investors will continue in the future. Interestingly, the increase in investors occurred during the COVID-19 period. The COVID-19 pandemic gave students much time to learn the importance of financial literacy.

Investing behaviour is included in behavioural finance. The development of this theory involved fusing the fields of neurology, psychology, and finance (Aren, Hamamci, & Özcan, 2021; Putri, Praswati, Muna, & Sari, 2022; Srivastava & Singh, 2020). Behavioural finance says a decision is made by combining emotional and intellectual skills (Olsen, 1996). The derivative of this is that the ability of investors to make decisions on investment instruments is a personality trait of that person (Sarwar et al., 2020). Discussions about behavioural finance relate to personality traits. Previous studies proved that personal traits significantly influence investment intentions (Durand, Newby, Tant, & Trepongkaruna, 2013; Kleine, Wagner, & Weller, 2016; Mayfield, Perdue, & Wooten, 2008; Peterson, 2011; Tauni, Rao, Fang, & Gao, 2017; Yang, Hsu, & Tu, 2012). Personality traits affect investment intentions and a person's risk-taking (Soane, Dewberry, & Narendran, 2010). Someone with a different character and nature will respond from a different viewpoint if faced with the same level of risk. For example, a person with the neuroticism type is more prepared to take risks, but it differs from the extraversion type (Brown & Taylor, 2014; Wilt & Revelle, 2015).

Another challenge for Generation Z and Alpha is the ability to self-regulate under pressure. The level of risk tolerance in Generation Z and Alpha in investing is a hypothesis that needs to be proven. That is because, in investing, a person must be under pressure, but the more they can handle it, nothing prevents them from investing (Pak & Mahmood, 2015). People well prepared to accept risk in investing will likely be more successful because they dare to make decisions (Clark-Murphy & Soutar, 2004; Wood & Zaichkowsky, 2004). Someone who invests in the capital market has a greater return than someone who invests in bonds. This higher return is because stock market investors are more willing to take risks than bond market investors (Bali, Demirtas, Levy, & Wolf, 2009; Bernstein, 2019).

In investing, a level of knowledge of finance is essential. That is the difference between investing and gambling. The higher a person's level of financial literacy, the higher their intention to invest in the capital market (Akhtar, Thyagaraj, & Das, 2018; Yang & Han, 2021).

This study aims to investigate the behaviour of Generation Z and Alpha in Indonesia and their intention to invest during the coronavirus pandemic. There are fundamental differences in personality traits between generations Z and Alpha. Generation Z is interested in exploring new things, highlighting their identity and social interactions, not being too friendly, and having high self-esteem. Whereas the alpha generation tries to do new things, is impulsive, limits themselves to the social environment, and has low empathy and emotional levels (Thomas & George, 2021). This research is interesting to study for two main reasons. First, there is a phenomenal gap. During the coronavirus pandemic in Indonesia, people's intention to invest in Generation Z and Alpha overgrew, even though Generation Z and Alpha are known for being unable to make decisions and avoiding vast amounts of pressure. Second, the researcher thinks that during the coronavirus pandemic, no research has

examined how Generation Z and Alpha behave with money in Southeast Asian countries. This study contributes to expanding the literature. In this study, a novel research model was formed that tested the role of risk tolerance as a mediating variable in predicting investment intentions. The model has yet to be tested. Based on the explanation, we identify the research problem. They are: (1) Is there any influence between personal traits, financial literacy, and risk tolerance towards investment intentions? (2) Does risk tolerance mediate the influence of personality traits on investment intentions?

2. LITERATURE REVIEW AND HYPOTHESIS

2.1. Personal Traits

In the sub-science of psychology, it was found that personality traits are essential in shaping a person's behaviour. Human behaviour and response to situations are always different because each has different traits (Heinström, 2003). The most prominent and relevant individual differences are in the individual himself (Allport & Odbert, 1936). The statement emphasizes that the differences of every human being are something that naturally happens. Personality traits combine cognitive, emotional, and motivational characteristics that influence human behaviour and response to circumstances, including finances (Dole & Schroeder, 2001; Norman & Smith, 1995).

In previous research, psychologists have predicted that in making decisions related to finance, personality traits become one of the leading shapers of this behaviour (Durand et al., 2013; Fenton-O'Creevy, 2005). The study emphasizes that each type of investor has different personal characteristics in financial behaviour, including investment intentions. Allport and Odbert (1936) argue that personality traits are divided into five models, or the Big Five Model of personality traits. These models include extraversion, neuroticism, openness, conscientiousness, and agreeableness.

Extraversion refers to human nature that is talkative, active, assertive, and sociable. These traits show that human nature leads to a person's ease in building relationships. In investing, they have different behaviours. Some frequently invest (Brown & Taylor, 2014; Sarwar et al., 2020; Tauni et al., 2017; Yang et al., 2012), but some never invest (Durand et al., 2013; Durand, Newby, & Sanghani, 2008). Several studies have stated that they are sometimes brave in taking many risks (Becker, Deckers, Dohmen, Falk, & Kosse, 2012; Durand et al., 2013; Fenton-O'Creevy, 2005; Kleine et al., 2016; Peterson, 2011).

Neuroticism refers to the human ability to control the stress we receive. The highest neuroticism score was defined as neurotic, while the lowest was emotional stability. The relationship between neuroticism and risk tolerance is not always clear regarding risk tolerance. These variables are more risk-averse (Davidson, 2012), although the risk challenges some and takes investment action (Durand et al., 2013; Durand et al., 2008; Tauni et al., 2017). Aren et al. (2021) found that neuroticism affects the intention to invest, even though neuroticism does not affect risk.

Openness is a human nature that is open to accepting new ideas and thoughts. They have a good level of imagination, are open to innovation and cognitive abilities, and always use information in making decisions (Akhtar et al., 2018; Pinjisakikool, 2017; Tauni et al., 2017; Wilt & Revelle, 2015). In some cases, people with openness and good cognitive abilities are more careful when making financial decisions (Aren et al., 2021). Based on that correlation with investment intention, individuals with an openness type avoid short-term trading too often (Aren & Hamamci, 2020) but prefer to invest in the long-term type (Mayfield et al., 2008). Some studies state that they take risks because it is possible to get something better and new (Curtis, 2016; Kleine et al., 2016).

Conscientiousness is a dependable, responsible, organized, and systematic human being. In addition, conscientiousness refers to cognitive and analytical abilities in making decisions. For example, Akhtar and Batool (2012) stated that they prefer short-term investments to get the return they want immediately. Regarding the stock market, they prefer to trade instead of invest (Curtis, 2016; Friehe & Schildberg-Hörisch, 2018; Lönnqvist, Verkasalo, Walkowitz, & Wichardt, 2015; Peterson, 2011; Pinjisakikool, 2017; Soane & Chmiel, 2005). Concerning

at-risk tolerance, there are two contradictory results. Dohmen, Falk, Huffman, and Sunde (2010) stated that a person with the conscientiousness type dares to take risks, but (van Santen et al., 2011) stated that there is no effect between risk-taking and conscientiousness.

Agreeableness means that someone can get along with others and has the human ability to receive information (Durand et al., 2013; Srivastava & Das, 2015). Tauni et al. (2017) and Wilt and Revelle (2015) stated that this type also has good affective and cognitive abilities. Because they have good cognitive abilities, they analyze investments well (Kleine et al., 2016). In addition, the nature of agreeableness makes people optimistic about seeing things (Davidson, 2012), thus giving them a high level of risk tolerance (Dohmen et al., 2010).

H_1: Extraversion significantly affects investment intention.

H_2: Extraversion significantly affects risk tolerance.

H_3: Neuroticism significantly affects investment intention.

H_4: Neuroticism significantly affects risk tolerance.

H_5: Openness significantly affects investment intention.

H_6: Openness significantly affects risk tolerance.

H_7: Conscientiousness significantly affects investment intention.

H_8: Conscientiousness significantly affects risk tolerance.

H_9: Agreeableness significantly affects investment intention.

H_{10}: Agreeableness significantly affects risk tolerance.

2.2. Risk Tolerance

Risk tolerance is essential to investing (Kiev, 2003; Pratiwi & Puspawati, 2022; Wibowo, 2017). Tolerance means a person's ability to survive a non-linear risk or condition (Kashif & Khattak, 2017; Low, Ullah, Shirowzhan, Sepasgozar, & Lin Lee, 2020; Tariq, Alshurideh, Akour, & Al-Hawary, 2022). In finance, risk tolerance refers to an individual's willingness to accept the inherent uncertainties associated with making financial decisions (Yang & Han, 2021). Risk influences human behaviour, especially towards money, and is characterized by a person's desire to participate in investment behaviour (Ajzen & Fishbein, 1977). Someone who owns and dares to take risks will prefer to buy investment instruments, including stocks (Clark-Murphy & Soutar, 2004; Wijayanti, Ariani, & Suyatmin, 2022; Wood & Zaichkowsky, 2004). Previous research stated that risk tolerance significantly affects investment intentions (Kashif & Khattak, 2017; Low et al., 2020; Sarwar et al., 2020; S. Yang et al., 2012). Based on the previous explanation, risk tolerance may depend on a person's personality traits, impacting their investment intentions.

H_{11}: Risk Tolerance significantly affects investment intention.

2.3. Financial Literacy

Investment behaviour cannot be separated from financial literacy (Sarwar et al., 2020; Yang et al., 2012). Financial literacy helps people solve financial problems (Garg & Singh, 2018). Usually, someone will prefer to be involved and practice financial behaviour if they master financial literacy (Anbar & Melek, 2010). Previous research by Kamakia, Mwangi, and Mwangi (2017) stated that financial literacy helps determine financial intelligence, including stocks, deposits, and insurance. Grable (2000) also found that someone with high financial literacy will be more daring in investing. Financial literacy becomes a basis for investing (Tanuwijaya & Setyawan, 2021).

Research results show that financial literacy has no effect on investment (Kasoga, 2021). However, more scholars reveal a significant effect of financial literacy on investment intentions (Pak & Mahmood, 2015; Tsai, Wang, & Lu, 2011; Yang & Han, 2021).

H_{12}: Financial Literacy significantly affect investment intention.

2.4. The Relationship among Personality Traits, Risk Tolerance, And Investment Intention

Personality traits and risk tolerance are important to financial behaviour (Ajzen & Fishbein, 1977; Aren et al., 2021). Personality traits are related to risk tolerance and investment intentions (Brown & Taylor, 2014). The practical significance of the five-factor theory in understanding people's inclination towards investment purposes is evident (Sadiq & Khan, 2019). Several previous studies have revealed that personality traits affect risk tolerance (Becker et al., 2012; Dohmen et al., 2010; Durand et al., 2013; Kleine et al., 2016). Another piece of previous research states that risk tolerance coexists with investment behaviour (Pak & Mahmood, 2015). Moreover, Clark-Murphy and Soutar (2004) state that personality traits affect risk tolerance, which raises investment intentions.

From the literature above, we found the hypothesis including:

H₁₃: Risk tolerance mediates between Extraversion to investment intention.

H₁₄: Risk tolerance mediates between neuroticism to investment intention.

H₁₅: Risk tolerance mediates between openness to investment intention.

H₁₆: Risk tolerance mediates between conscientiousness to investment intention.

H₁₇: Risk tolerance mediates between agreeableness to investment intention.
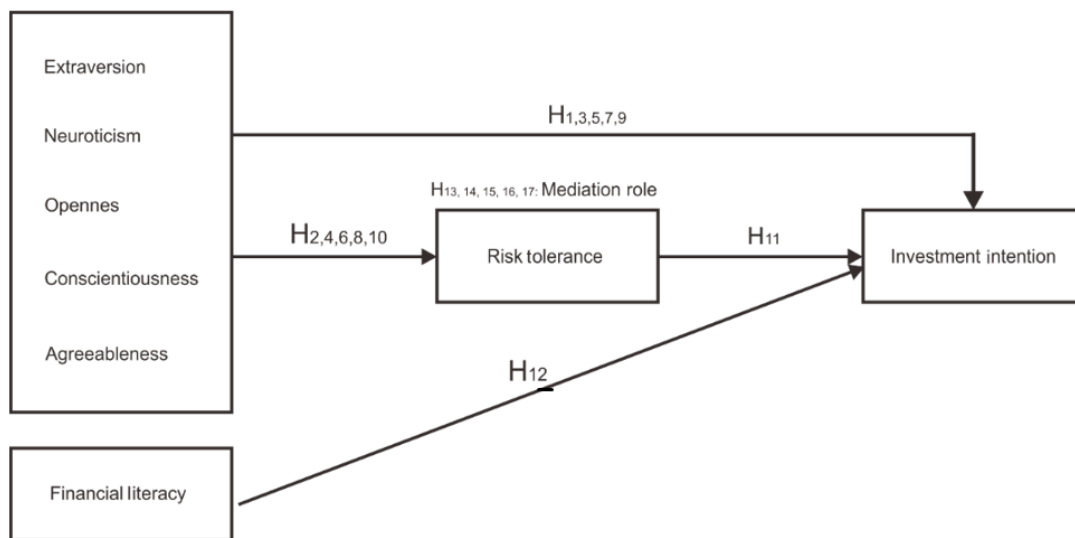

Figure 1. Research model.

Figure 1 represents the theoretical framework to illustrate the development of hypotheses.

This research is interesting to study for two main reasons. First, there is a phenomenal gap. During the coronavirus pandemic in Indonesia, people's intention to invest in Generation Z and Alpha overgrew, even though Generation Z and Alpha are known for being unable to make decisions and avoiding vast amounts of pressure. Second, the researcher thinks that during the coronavirus pandemic, no research has examined how Generation Z and Alpha behave with money in Southeast Asian countries. This study contributes to expanding the literature. In this study, a novel research model was formed that tested the role of risk tolerance as a mediating variable in predicting investment intentions. The model has yet to be tested.

3. METHODS

The sample of this research is undergraduate students majoring in economics, accounting, business, and management who have taken courses in investment management, financial reports, and capital markets. The population in this study is huge, so the population is infinite. Therefore, an observation-to-variable ratio of 5:1 is used to determine the minimum sample size. However, Flury, Murtagh, and Heck (1988); Osborne and Costello (2004) and Tabachnick and Fidell (1989) say that a ratio of 15:1 or 20:1 is a better way to figure out the minimum

sample size. This study's number of variables was eight, so the minimum sample size was 160. However, we took data from more than 160 samples to get more precise results.

The data in this study were taken using an online sampling technique. Respondents came from various regions in Indonesia, especially those from Java, Indonesia. We chose respondents from Java Island because the distribution of respondents from the island of Java was 56.1%. We get responses from respondents by sending them an email with a link to the web-based survey. Web-based surveys are considered appropriate for collecting data because the research was carried out during the coronavirus pandemic, so it was impossible to meet respondents in person. In addition, web-based surveys are also an effective and fast way to get data from respondents from different areas with limited time (Tauni et al., 2017). Moreover, to get a more comprehensive sample, we asked respondents who received the link to fill out the questionnaire to forward the link to colleagues, family, and other people to other potential respondents. This process continues until we get the appropriate number of samples.

The data collection spanned three months, resulting in 405 returned questionnaires. However, only 306 questionnaires (75.6% of the total) were completed, surpassing the recommended minimum sample size.

Table 1. Demographic information.

Gender	Male	98 (32%)
	Female	208 (68%)
Age	Less than 16	32 (10.5%)
	17 − 19	261 (85.3%)
	20 − 22	11 (3.6%)
	More than 23	2 (0.7%)
Occupancy	Employee	2 (7%)
	Student	293 (95.8%)
	Civil servant	11 (3.6%)
Monthly income	Less than 1 million rupiah	213 (69.6%)
	1 − 3 million rupiah	86 (28.1%)
	3 − 5 million rupiah	5 (1.6%)
	More than 5 million rupiah	2 (0.7%)

Table 1 presents the demographic information of the respondents. Male respondents are 32%, and female respondents are 68%. Most respondents are 17-19 years old, are students, and have a monthly income of less than 1 million rupiah. It is an interesting thing about this research. In this research, investors with less than $1 million in income are dominated (69,6%) by occupancy as students (95,8%) between 17-19 and less than 16 years old, where students are the Z and Alpha generations. In Indonesia, on average, in one month, students earn less than 1 million rupiahs (equivalent to USD 60). However, it can be more than 1 million rupiahs if they have side jobs like salespeople or entrepreneurs.

Personality traits were assessed using adjusted statements from Lu and Lee (2012) and McCrae and Costa (2008). Financial literacy was measured using statements adapted from Lusardi and Mitchell (2011), while risk tolerance was gauged using adjusted statements from Pak and Mahmood (2015). Investment intention was assessed using three statements from Chen (2007), rated from strongly disagree to strongly agree.

Our analysis employed SPSS 25 for descriptive statistics and SmartPLS to construct the research model. This approach differs from a previous study by Pak and Mahmood (2015), who used SPSS to examine separate regression models. In this study, SEM-PLS is used to explore the mediating effect of risk tolerance between personality traits and investment intention. We also test the influence of financial literacy on investment intention. SmartPLS facilitates Structural Equation Modeling (SEM). According to Cepeda-Carrion, Cegarra-Navarro, and Cillo (2018), PLS-SEM can be used to estimate complex cause-and-effect models with latent variables. According to Peng and Lai (2012) proposal, it is appropriate for evaluating complex conceptual models and higher-order constructs with mediation. In line with Leguina (2015), we adopted a two-step approach: first, we tested the outer model for

convergent and discriminant validity using Confirmatory Factor Analysis (CFA) and assessed model fit. Subsequently, we calculated composite reliability (CR), Cronbach's Alpha, and Average Variance Extracted (AVE) when evaluating the inner model for hypothesis testing.

4. RESULTS

The model measurement assessment of this study is summarized in Table 2. The data collected for the study included various items, all of which demonstrated strong reliability with values exceeding 0.70, indicating that the items were well-constructed. Composite Reliability (CR) ranged from 0.836 (Financial Literacy) to 0.897 (Investment Intention), all comfortably exceeding the 0.70 threshold. The lowest Cronbach's Alpha was 0.705 (Financial Literacy), and the highest was 0.826 (Investment Intention), both surpassing 0.70. The Average Variance Extracted (AVE) for each variable exceeded 0.5, with Financial Literacy at 0.631 (lowest) and Investment Intention at 0.744 (highest), indicating data quality and reliability. In Table 3, the results of the discriminant validity test are presented. All HTMT values are below 0.90, confirming adequate discriminant validity for all variables.

Table 2. Model measurement assessment.

Latent variables	Items	Standardized factor loadings	CR	Cronbach's alpha	AVE
Extraversion	EX1	0.723	0.874	0.811	0.635
	EX2	0.735			
	EX3	0.867			
	EX4	0.852			
Neuroticism	NE1	0.786	0.856	0.747	0.664
	NE2	0.831			
	NE3	0.827			
Openness	OP1	0.863	0.892	0.819	0.734
	OP2	0.889			
	OP3	0.817			
Conscientiousness	CO1	0.831	0.879	0.795	0.708
	CO2	0.868			
	CO3	0.824			
Agreeableness	AG1	0.854	0.850	0.736	0.654
	AG2	0.757			
	AG3	0.812			
Financial literacy	FL1	0.714	0.836	0.705	0.631
	FL2	0.830			
	FL3	0.834			
Risk tolerance	RT1	0.814	0.841	0.720	0.639
	RT2	0.742			
	RT3	0.839			
Investment intention	II1	0.885	0.897	0.827	0.744
	II2	0.879			
	II3	0.822			

Table 3. Heterotrait-Monotrait ratio (HTMT) for discriminant validity.

HTMT	EX	NE	OP	CO	AG	FL	RT	II
EX	0.797							
NE	0.739	0.815						
OP	0.503	0.552	0.857					
CO	0.616	0.62	0.491	0.841				
AG	0.635	0.579	0.572	0.648	0.808			
FL	0.408	0.401	0.442	0.381	0.46	0.794		
RT	0.510	0.546	0.497	0.404	0.497	0.629	0.799	
II	0.461	0.58	0.529	0.487	0.518	0.696	0.718	0.863

Note: EX = Extraversion, NE = Neuroticism, OP = Openness, CO = Conscientiousness, AG = Agreeableness, FL = Financial literacy, RT = Risk tolerance, II = Investment intention.

Table 4 shows the results of hypothesis testing for direct effects. From the results obtained, there are several supported and some unsupported hypotheses. The coefficient value and t value indicate that extraversion is negative and significantly affects investment intention (β = -0.167, p < 0.01). Neuroticism has a positive and significant effect on investment intention (β = 0.244, p < 0.01) and risk tolerance (β = 268, p < 0.01). Openness has a positive and significant effect on investment intention (β = 0.076, p < 0.05) and risk tolerance (β = 0.213, p < 0.001). Agreeableness positively and significantly affects risk tolerance (β = 0.178, p < 0.05). Financial literacy positively and significantly affects investment intention (β = 0.359, p < 0.01). Risk tolerance positively and significantly affects investment intention (β = 0.347, p < 0.01). These results support H1, H3, H4, H5, H6, H10, H11, and H12, while the results do not support H2, H7, H8, and H9. These results explain 37.2% of the total variation in risk investment and 66.4% in investment intention.

Table 4. Hypotheses testing for direct effect.

Hypotheses	Relationship	B	SE	P values	Findings
H1	EX -> II	-0.167	0.052	0.001**	Supported
H2	EX -> RT	0.13	0.099	0.190	Not supported
H3	NE -> II	0.244	0.052	0.000**	Supported
H4	NE -> RT	0.268	0.087	0.002**	Supported
H5	OP -> II	0.076	0.037	0.040*	Supported
H6	OP -> RT	0.213	0.062	0.001**	Supported
H7	CO -> II	0.101	0.052	0.054	Not supported
H8	CO -> RT	-0.063	0.079	0.429	Not supported
H9	AG -> II	0.037	0.046	0.432	Not supported
H10	AG -> RT	0.178	0.071	0.013**	Supported
H11	FL -> II	0.359	0.052	0.000**	Supported
H12	RT -> II	0.347	0.049	0.000**	Supported

Note: N=306; *P<0.05, **P<0.01.
EX = Extraversion, NE = Neuroticism, OP = Openness, CO = Conscientiousness, AG = Agreeableness, FL = Financial literacy, RT = Risk tolerance, II = Investment intention.

Table 5. Hypotheses testing for indirect effect.

Hypotheses	Relationship	β	SE	P values	Findings
H13	EX -> RT -> II	0.045	0.037	0.221	Not supported
H14	NE -> RT -> II	0.093	0.032	0.003**	Supported
H15	OP -> RT -> II	0.074	0.023	0.001**	Supported
H16	CO -> RT -> II	-0.022	0.028	0.441	Not supported
H17	AG -> RT -> II	0.062	0.025	0.013*	Supported

Note: N=306; *P<0.05, **P<0.01.
EX = Extraversion, NE = Neuroticism, OP = Openness, CO = Conscientiousness, AG = Agreeableness, FL = Financial Literacy, RT = Risk Tolerance, II = Investment Intention

Next, we tested the hypothesis for the indirect effect, which tested the effect of risk tolerance as a mediating variable. The results are shown in Table 5. The bootstrapping results show that the coefficients and t values on H14, H15, and H17 are positive and significant (H14: = 0.093, p < 0.01; H15: = 0.074, p < 0.01; H17: = 0.062, p < 0.05), which means that risk tolerance has a mediating effect on the influence of neuroticism, openness, and agreeableness on investment intention. Therefore, hypotheses H14, H15, and H17 are supported, while H13 and H16 are not.

5. DISCUSSION

The results on the direct effect explain that hypotheses H1, H3, H5, H11, and H12 proved that extraversion, neuroticism, openness, financial literacy, and risk tolerance significantly affect investment intention. These results are the same as research conducted by Durand et al. (2013); Mayfield et al. (2008); Pak and Mahmood (2015); Tauni et al. (2017) and Yang et al. (2012). Hypotheses H4, H6, and H10 result in the finding that neuroticism, openness,

and agreeableness significantly affect risk tolerance, which means these results align with research conducted by Dohmen et al. (2010); Durand et al. (2013); Kleine et al. (2016) and Peterson (2011).

Based on the findings in our study, extraversion affects investment intention. These results align with Tauni et al. (2017) and Yang et al. (2012) research. Someone with the extraversion type can reduce negative moods and immediately evoke a positive mood, making them more optimistic than others. That is the principal capital in understanding capital market conditions so that they are more daring in making investments, even though the capital market conditions are unsuitable due to the coronavirus pandemic. This study also proves that extraversion does not affect risk tolerance. However, these findings are consistent with other smaller studies, such as that carried out by van Santen et al. (2011), which claim that there is no connection between these traits and risk tolerance. The results of the third and fourth hypotheses are that neuroticism significantly affects investment intentions and risk tolerance. A person with this type of neuroticism is identical to his weakness. A person with this type of neuroticism is found to be rarely able to control emotions. However, despite their weaknesses, they are more prepared to face something realistic, including losses in investing in the capital market, even though they are in bad conditions. This study aligns with Peterson (2011) and Pinjisakikool (2017), who state that neuroticism affects investment intentions and risk tolerance. The results of this study also show that openness affects investment intention and risk tolerance. Previous research also supports this result, which revealed the same thing (Kleine et al., 2016; Peterson, 2011; Wilt & Revelle, 2015). People with openness are the most skilled in investing because they are ready to receive any information. Such information will be received and properly managed. That is because they have above-average cognitive abilities, so they can manage their risk tolerance and analyze unfavourable market conditions as a personal advantage. Surprisingly, the sixth and seventh hypotheses were not supported. The seventh and eighth hypotheses state that conscientiousness does not affect investment intention or risk tolerance. Conscientiousness is familiar with the power of intuition (Aren et al., 2021). Conditions on the capital market in Indonesia During the coronavirus pandemic, it was unstable. This instability triggers people with conscientiousness to have the intuition to avoid risk and invest in something uncertain. It is possible because their intuition arises based on the situation and context of these conditions. The hypothesis about agreeableness in the ninth and tenth hypotheses showed exceptional results. The tenth hypothesis shows that agreeableness affects risk tolerance, while the ninth hypothesis shows that agreeableness does not affect investment interest. Agreeableness affects risk tolerance because someone with this type is more favourable to seeing a situation. The corona virus pandemic allows agreeable people to show their existence by helping others. Someone with high agreeableness will contribute to helping others rather than using their money to invest in the capital market.

It is because agreeableness is closely related to making friends with other people. The results of the ninth hypothesis are a novel phenomenon, but the results of the tenth hypothesis are consistent with earlier studies (Davidson, 2012; Dohmen et al., 2010). The results of the eleventh and twelfth hypotheses were tested, and the result is that financial literacy and risk tolerance affect investment intention. These results add to the contribution of literacy about the factors that influence investment intention. The results on the eleventh and twelfth hypotheses are the same as the results of previous studies by Akhtar et al. (2018); Kashif and Khattak (2017) and Yang et al. (2012). The coronavirus pandemic puts pressure on the capital market, making it possible for uncertain conditions, financial literacy, and risk tolerance levels to be good when investing in the capital market. That is because by having good financial capabilities, people will better understand stock market conditions so that investors are wiser in and-out of the capital market (Akhtar et al., 2018). Uncertain capital market conditions also put pressure on investors. Hence, the more investors have a good level of risk tolerance, the more daring they will be to invest in the capital market (Kashif & Khattak, 2017; Low et al., 2020; Tariq et al., 2022; Yang & Han, 2021).

The results on the indirect effect also show different results from the proposed hypothesis. The results of this test are interesting because, to the best of our knowledge, these results are the first test results to examine the role of risk tolerance in the relationship between personality traits and investment intentions. The results on hypotheses

H14, H15, and H17 show that neuroticism, openness, and agreeableness significantly affect investment intentions, with risk tolerance as a mediating variable. The exciting thing about the results of this study is the role of complete mediation in the relationship between agreeableness and investment intentions during the coronavirus pandemic. The direct effect results show that agreeableness does not affect investment intentions.

On the other hand, when the risk tolerance variable is added, risk tolerance significantly affects investment intentions. The realistic nature of someone with neuroticism and cognitive abilities possessed by someone with openness and agreeableness that tends to think positively will certainly increase vigilance and prudence in analysis to increase risk tolerance, which impacts investment intentions. The results of hypotheses H13 and H16 show no mediating role in the effect of extraversion and conscientiousness on investment intentions during the coronavirus pandemic. That is reasonable because, in the direct effect test, the results show that extraversion and conscientiousness do not affect risk tolerance.

6. CONCLUSION

When unusual events occur, such as the coronavirus pandemic, the importance of studying how individuals manage their finances becomes evident. This understanding of financial behavior enables the identification of various factors that influence financial decisions, including participation in the capital market. The findings of this research further bolster prior studies. Empirically, this investigation demonstrates that extraversion, neuroticism, openness, financial literacy, and risk tolerance all play significant roles in shaping investment intentions. These results underscore the impact of personal traits on investment decisions, particularly in volatile stock market conditions like those experienced during the coronavirus pandemic. Notably, neuroticism, openness, and agreeableness have been observed as influential factors in determining risk tolerance, with individuals possessing these traits showing a greater inclination to take investment risks.

Empirically, this study confirms that traits such as extraversion, neuroticism, openness, financial literacy, and risk tolerance significantly influence investment intentions. These results underscore how personal characteristics impact one's investment decisions, especially in uncertain stock market conditions like those seen during the coronavirus pandemic. Specifically, individuals with neuroticism, openness, and agreeableness traits tend to display a higher inclination towards taking investment risks.

On the other hand, conscientiousness and agreeableness do not appear to have any noticeable influence on investment intentions, and extraversion and conscientiousness do not seem to affect risk tolerance. Additionally, this study presents new insights, particularly regarding mediating effects, as prior research has not delved into the role of risk tolerance as a mediating factor within the context of how personality traits shape investment decisions. The findings of the mediation analysis reveal that neuroticism, openness, and agreeableness impact investment interest, with risk tolerance serving as a mediating variable. Notably, agreeableness exhibits a perfect mediating effect on investment intentions, while the effects of neuroticism and openness on investment interest differ. Conversely, there is no observed mediating effect in the relationship between extraversion, and conscientiousness, and investment intentions. Ultimately, this study addresses a previously unexplored gap in understanding the role of risk tolerance as a mediating variable in financial decision-making.

The results of this study also provide various implications. The first implication is, of course, aimed at the Indonesia Stock Exchange (IDX). When economic conditions and the capital market are volatile, IDX, as the central capital market institution in Indonesia, must try harder to increase investment intentions in the Indonesian capital market. Investors from Generation Z and Alpha have the potential to become new investors when economic problems occur. In order to make Z and alpha generations invest in the capital market, IDX needs to take a different approach to each character of potential investors. We recommend that IDX focus on potential investors with extraversion, neuroticism, and openness as potential new investors and avoid potential investors with this type of conscientiousness. Prospective investors with the agreeableness type need a different approach because they

prefer to help their fellow human beings directly. The way that can be done is to provide an understanding that investing in the capital market also has a massive impact on many people. When they already have a mature concept of helping people by investing in the capital market, as well as the ability to minimize concerns about risk, it is possible for someone with the agreeableness type to also have a request to invest in the capital market. The second recommendation is to potential new investors.

The second implication is for academics and lecturers at the university. This research is aimed at undergraduate students majoring in economics, accounting, business, and management who have taken courses in investment management, financial reports, and capital markets. This study's results help lecturers classify potential stock investors among students to encourage them to invest easily in the capital market. In addition, good financial literacy skills are also the primary basis for someone to invest. Therefore, lecturers must continue striving to provide students with sound financial literacy. Students with good financial literacy will have the potential to be interested in investing in the capital market. This research has limitations because it was carried out during the coronavirus pandemic from mid-2021 to early 2022 in Indonesia. That means there is a possibility of differences in results if the research is carried out over a different period of time. Therefore, it is essential to continue this research at a different time or after the end of the coronavirus pandemic so that the results of this study can be generalized.

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