

# Application of Online Investment Application for the People of Indonesia

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**Abstract.** The purpose of this study is to examine and analyze the application of factors that influence the intention of Indonesian people (millennial generation) specifically Banten, West Java, and DKI to use online investment applications. The construction is based on UTAUT and two other variables; Trust and perceived Risk. This study is an explanatory study in which quantitative data for static testing hypotheses are obtained through a cross-sectional survey using questionnaires. Data was obtained from the public through questionnaires by dividing the top 9 (nine) online investment application users registered with OJK. This study used questionnaires, quantitative research centers on statistical analysis of numerical data collected using large-scale survey research, from the results of 262 users of online investment applications analyzed using PLS-SEM, and SPSS. and Smart PLS tool programs. The results of the study found H4 and H6 influential because the value is greater than 5%, while H1, H2 H3, and H5 have no effect because the value is smaller than 5%, which is according to the PLS Bootstrapping technique. This shows that facilitating conditions, and perceived risks have a significant effect on the intention to implement online investment applications in Indonesia. While performance expectations, business expectations, social influence, and trust do not affect the intention to implement online investment in Indonesia.

**Keywords:** Online Investment App, Perceived Risk, Trust, UTAUT.

## 1. INTRODUCTION

Today, many companies have tried to make it easier for people to invest, namely with online facilities. The online facility itself is a form of innovation from the development of the capital market. Online facilities come with all the ease of access and minimum investment capital provided. Only with a nominal value of Rp. 50,000 and Rp. 100,000 can start a transaction. The number of companies is one of the factors to encourage the number of people to invest, especially in the capital market. The capital market is currently increasingly in demand by millennials or young people. Millennials are the generation born in the range of 1980-2000s. The millennial generation was born with ease of access in all aspects ranging from shopping, and tourist destinations to financial institutions. The millennial generation simply accesses everything needed through brand gadgets. However, there are still many millennial generations who do not have an interest in investing and are not aware of the importance of investing. Most millennials hold the concept of "You Only Live Once" so they have a high level of impulsivity for the present and forget about the future. Some of them think that investing is difficult and feel worried about starting. This is due to fear of the risk of loss, capital loss, and other negative risks.

Economic conditions in Indonesia show improving conditions. After going through the pandemic period, economic growth experienced significant growth. Based on data from the Central Statistics Agency (BPS) as of the third quarter of 2022, it is known that the value of Gross Domestic Product (GDP) reached Rp5,091.2 trillion, an increase of 17.70% compared to the same period the previous year of Rp4,325.4 trillion. In addition, the performance of the Capital Market sector also showed positive results, some of the indicators include the Composite Stock Price Index (JCI) as of December 19, 2022 was recorded at 6,779.70, an increase compared to the end of 2021, which was 6,681.5.

In addition, the capitalization value of the Indonesian Capital Market as of December 17, 2022, reached IDR 9,330 trillion with the amount of funds raised through public offerings of shares, bonds, and sukuk reaching IDR 226.49 trillion. This shows that the Indonesian capital market shows excellent performance and is able to survive and grow amid uncertain global conditions. Currently, the capital market has become one of the alternative investment instruments that are attractive to the public.

Based on the results of the first year of 2022, as many as 511 respondents answered the question of what investment application to use. Respondents' answers regarding the online investment application they are using, as many as 62.6% of respondents answered that they did not use online investment applications and the rest used online investments. From the data above, the author takes the top 6 (six) investment applications that will be studied more deeply in this study. As many as 13.5% of respondents used the Bibit application as an investment application used, 10.4% answered using Bank Securities, as many as 9% of respondents used Ajaib, as many as 7.8% used OVO Invest, as many as 6.7% used IPOT, and as many as 3.7% used Bareksa as the online investment application used.

The intention to choose online investing as an option over traditional finance has attracted researchers. According to (Shulhan & Oetama, 2019), there has been a significant increase in the application of innovation and information technology in the Indonesian financial services sector. However, awareness of online investment applications is still low compared to loan applications.

Based on research conducted by CIMB Niaga, Ayoconnect, and Investree entitled 'Fintech Report 2020, Maintain Growth during a Pandemic', it was found that fintech investment awareness or online investment in Indonesia is 57.3%, while fintech is offering financial services through new technology, payment of 82.3%. This is because the majority of fintech lending businesses target productive segments. Generally, they provide capital loans to help MSMEs ("Fintech Report 2020", 2021).

National respondents. More than 50% of people are unfamiliar with fintech on first impressions in survey results. While in Figure 2 the gap in understanding between age groups can be seen from the details of age groups, namely:

1. About 70.8% of the general public under 20 years old is not very familiar with fintech. Furthermore, the study conducted an online public survey to learn more about how the market is currently using and attitudes towards a better understanding of fintech products.

2. Around 80% of the general public knows digital wallets, Pay later, and investment as fintech products. According to Figure 3, this accounts for 82.2 percent of digital wallet awareness and 72.5 percent of payment awareness.

3. While 57.3 percent are aware of investment, this shows that consumer awareness of fintech products is dominated by the use of digital wallets and payments / loans (pay later / lending).

On the other hand, the three main reasons for using fintech products are in accordance with people's needs (70.7 percent), trusted products (68.3 percent), and time-saving (67.8 percent). Only 20.9 percent are interested in using fintech products because of recommendations from others ("Fintech Report 2020", 2021). Therefore, with easy access to information that can be obtained for novice investors who have just joined the capital market. The amount of illegal online investment is increasing. Until the end of 2021, the Financial Services Authority (OJK), the Investment Alert Task Force (SWI), and the Ministry of Communication and Information Technology have blocked 93 illegal investment entities, 708 illegal online lending entities, and 17 illegal pawnshops (Investment, 2022). People may hesitate to invest as a result of this. People should not be tempted by high returns if they are not willing to accept high risks. Every potential return comes with a potential risk. However, in the financial services industry, especially in terms of digital transformation, policy adjustments are very important due to the rapid development of information technology (Suryono et al., 2020). Stakeholders such as the Financial Services Authority (OJK), the Ministry of Communication and Information Technology, and the Investment Alert Task Force are mandated to manage and make room for sector growth regardless of whether it is written in laws or government decrees.

The application of investment applications using UTAUT's integrated model, namely trust, and perceived risk and will test them to predict individual investors' intentions to implement online investment applications, is extended from four other variables, namely: facilitation conditions, performance expectations, effort expectations, and social influence. With the object of research of the Indonesian Society (millennial generation) on the island of Java, it is limited to only 3 provinces, namely Banten, West Java and DKI Jakarta.

This study aims to explore the knowledge of online investment areas. The benefits that will result from this research will provide guidance for online investing and provide benefits for academics, practitioners, and even customers. A significant contribution will be made to online investing, which may get more information about their customers' preferences in choosing an online investment app to invest their money in. Research results can be used to identify opportunities, minimize risk, gauge reputation, and uncover barriers such as lack of awareness, fraud, and skepticism.

The study will carefully discuss the factors influencing people's intention to adopt online investment applications, so that academics and practitioners can learn about this field in more depth at the end of the study. Future research will help academics develop new ideas for further critical exploration. By exploring details about online investing, customers will also benefit from this research on knowing briefly about online investing theory. Later it can increase their understanding to carry out the behavior of choosing online investment applications.

## **2. LITERATURE REVIEW**

Researchers have reviewed relevant theories, including the Unified Theory of Acceptance and Use of Technology (UTAUT), The Trust Theory, The Perceived Risk Theory, The Theory of Reasoned Action (TRA), The Theory of Planned Behavior (TPB), and the Theory of Planned Behavior (TPB), and the Theory of Planned Behavior (TPB). Technology Acceptance Model (TAM). As a result, researchers propose an integrated model of UTAUT, trust, and perceived risk and will test it to predict individual investors' intentions to use online investment applications.

A literature review has found several studies on technology adoption in investing especially online applications whose main scope of research is consumer intention. Most studies mainly use TAM and UTAUT models as theoretical models. Therefore, UTAUT has been well-known in recent years in this study. In the UK,

(Slade et al., 2015) developed a model to understand consumer intent to implement remote mobile payments by extending UTAUT with the addition of variables. There is a risk and belief that the research obtained does not significantly affect the use of mobile banking intentions.

Zhou et al. in China investigated mobile banking and payment adoption using the UTAUT model. Therefore, the study found that the intention for consumers to use was significantly influenced by performance expectations, social influences, and the conditions that facilitated with the addition of technology found that compatibility and interconnection strongly influenced the intention to use.

In West Asia, (Alkhunaizan & Love, 2012) investigated the factors driving mobile commerce adoption in Saudi Arabia by extending the UTAUT model with Perceived Cost and Trust, while according to Martins, (Martins et al., 2014) improved the conceptual model that is able to combine UTAUT with perceived risk to describe behavioral intentions and Internet Banking Use Behavior. The survey was conducted with millennials and Portuguese alumni. The results show the importance of performance expectations, social influence, business expectations, and risk factors in intention prediction.

Meanwhile, research on the adoption of mobile banking by incorporating the UTAUT model has been conducted in Iran by (Saadi & Khoshtinat, 2015). The study found that effort expectations and subjective norms strongly influence the intention to use.

In addition, (Teo et al., 2015) investigated convenience and speed effects in mobile payments in Malaysia by applying the UTAUT model and obtained that effort expectations and facilitating conditions significantly influence behavioral intent.

Millennials or often called generation Y is a group of people born after generation X. They were born in the range of 1980 to the 2000s. Research conducted by the Alvora Research Center institution says the millennial generation holds great potential for business. In 2020, the millennial generation will dominate the population in Indonesia with a portion of around 34 percent, followed by 20 percent of generation X, and 13 percent of the baby boomers generation (born 1946 to 1964).

The first behavior, the millennial generation in Indonesia is very addicted to the internet. In a day, the average millennial generation can use the internet with a duration of more than seven hours with a certain age range. Second, millennial loyalty is low. When there is a better product, millennials will easily turn away. Third, the majority of millennials prefer to make non-cash transactions with a portion of 59 percent. This choice is what makes millennials have a 'thin' wallet, but that does not mean they do not have money. The fourth behavior is that the millennial generation can work faster and smarter because it is supported by the existence of technology. Technological developments also encourage millennials to have the ability to multi-task. This behavior makes millennials accustomed to doing two to three jobs sekaligus. et al. (2003), who stated the intention to behave is determined by four initial factors: performance expectations, social influence, effort expectations, and facilitation conditions. Researchers wanted to see if these factors had a relationship with the intention to implement online investment applications among Indonesians.

When a person is offered a technological innovation product and learns how to use it, it has an effect on their performance. The perceived usefulness of TAM/TAM2 and C-TAM-TPB, extrinsic motivation of MM, job fit of MPCU, relative advantage of IDT, and outcome expectations of SCT are all combined in performance expectations (Venkatesh, Morris, Gordon, et al., 2003). Several preliminary studies found a positive relationship between performance expectations and behavioral intention. (Casey & Wilson-Evered, 2012) estimate the uptake of technological innovation in online family dispute resolution services.

According to (Venkatesh, Morris, Gordon, et al., 2003) explain when users believe that technology is easy to use and does not require much effort, they have higher expectations to achieve the desired results. Users will accept a new technology if it is considered user-friendly and easy to use, allowing them to adopt it quickly.

Internet users' business expectations will increase their performance expectations for technology adoption (Chaouali et al., 2016). This shows that user performance is affected by the ease of use of the technology. Several other studies have found that business expectations have a significant effect on the performance expectations of technology users (Al-Qeisi et al., 2014; Oliveira et al., 2016). Researchers assume that business expectations will have a significant effect on the intention to implement online investment applications.

Social influence is the reaction of an individual to receive approval from his immediate environment to do certain things. The relationship between social influence and behavioral intentions is hotly debated. The level of social pressure on individuals to implement new technologies is defined as social influence (Chaouali et al., 2016; Kesharwani & Singh Bisht, 2012). According to (Martins et al., 2014), social influence affects users' intention to implement internet banking services.

Previous research found that social influence has a significant effect on internet banking users (Chaouali et al., 2016; Kesharwani & Singh Bisht, 2012; Martins et al., 2014). This viewpoint is consistent with previous research on technology-based innovation, where public opinion influences individual behavior through people's comments

and behavior, as well as news and mass media reports related to innovation (Belanche et al., 2012). Researchers assume that social influence will have a significant effect on the intention to implement online investment applications.

Consumer assurance of the availability of facilities and support systems to use new technologies is reflected in facilitating conditions (Martins et al., 2014; Venkatesh, Morris, Gordon, et al., 2003). This is analogous to behavioral control theory which perceives planned behavior (Zhou & Horrey, 2010). (S.-J. Hong et al., 2008) explain "users will have a lower intention to adopt information technology if they lack the necessary operational skills."

Based on previous research (Martins et al., 2014; Oliveira et al., 2016), researchers assume that facilitation conditions have a significant effect on users' intention to use internet banking. Researchers assume that facilitation conditions will have a significant effect on the intention to implement online investment applications.

(Gefen et al., 2003) states trust is the expectation that other people or businesses with whom one communicates or transacts will not take unfair advantage of one's dependence on them. Therefore, trust is an individual's confidence, security, and willingness to rely on a service, system, or product to consistently meet their expectations and not disappoint them (Kim & Chung, 2011; Koxsal, 2016). This is important because it can reduce consumer fear and uncertainty, lower decision complexity and increase adoption intent (Y. Chang & Luo, 2010; Koxsal, 2016).

According to (Malaquias & Hwang, 2016), security issues and the possibility of hacking customers' phones affect consumer acceptance of mobile technology. Perceived risk refers to the level of concern users are about the consequences of implementing a particular technology (Tan & Leby Lau, 2016). When users' self-information is known to others, they sense potential risk exposure (Featherman & Pavlou, 2003; Narteh et al., 2017). (Arcand et al., 2017) and (Hanafizadeh et al., 2014) explain the high level of perceived risk and uncertainty associated with mobile devices because people are usually afraid of losing these devices.

Meanwhile, investors' perception of the potential dangers from hacker attacks when using mobile trading is referred to as a security risk. Economic risk is an investor's perception of economic losses as a result of transaction errors or incorrect operations when using mobile trading. Investor perception of service unavailability or malfunction is defined as functional risk (Dong, 2020). Researchers assume that risk perception will have a significant effect on the intention to implement online investment applications.

According to IOM (2002), behavioral intent is the user's perceived ability to take advantage of something in a given situation. It is related to knowledge of the new system, its benefits, operation, and the opinions of others, which influence the behavioral intention to adopt or abandon its use (Wang et al., 2006).

Previous research has found that user intent and behavioral evaluation drive their use of technology (W. Hong et al., 2002; Venkatesh, Morris, Gordon, et al., 2003; Venkatesh et al., 2012). In line with (Venkatesh et al., 2008) who investigated the impact of behavioral expectations on technology use.

### 2.1. Hypothesis

*H<sub>1</sub>: Performance expectations significantly affect the intention to implement online investment among Indonesians, especially Banten, West Java and DKI Jakarta.*

*H<sub>2</sub>: Business expectations have a significant effect on the intention of the Indonesian people to implement online investment, especially Banten, West Java and DKI Jakarta*

*H<sub>3</sub>: Social influence has a significant effect on the intention of the Indonesian people to implement online investment, especially Banten, West Java and DKI Jakarta*

*H<sub>4</sub>: Facilitating conditions significantly affects the intention to implement online investment among Indonesians, especially Banten, West Java and DKI Jakarta*

*H<sub>5</sub>: Trust significantly affects the intention to implement online investment among Indonesians, especially Banten, Jawa and DKI Jakarta.*

*H<sub>6</sub>: The perceived risk significantly affects the intention to implement online investment among Indonesians, especially Banten, West Java and DKI Jakarta*

### 3. METHODOLOGY

This research is a correlational research based on a method that studies the relationship between two variables IV and DV with the help of statistical analysis. Correlational research does not study the effects of foreign variables on the variables studied. Data was collected using questionnaires with only one per respondent. In addition, to ensure that the sample exemplifies several subcategories within a population, the study will concentrate on the islands of Java, which include cities such as Banten, DKI Jakarta, West Java. Java Island was chosen because of its stature as the capital of Indonesia and has the highest internet penetration.

The methodology used in this study is quantitative research. This study used questionnaires, quantitative

research centers on statistical analysis of numerical data collected using large-scale survey research. Generalization of research results to the population through statistical analysis is one of the benefits of quantitative research. Other characteristics of quantitative research are deductive, objective, require less in-depth information, and responses are generally structured. The information collected is often numerically based, and its validity and reliability depend on the measurement instrument (Cooper & Schindler, 2014).

The data collection period is from July 10, 2023 to August 30, 2023. In this study, samples were taken from Indonesian people from Java; especially Banten, West Java and DKI Jakarta judgmental sampling is used with several criteria; people living in Indonesia, millennial generation, declared adults aged 27 to 42 years, and people who know or apply about online investment applications.

To get more respondents in a limited time, due to time constraints in working on this project, researchers used non-probability sampling, namely the purposive sampling method. Purposive sampling is a way of collecting data by determining the first few respondents, then the respondents are asked to share the survey results with their friends who match the research criteria. The study only used online surveys to conduct data collection. This type of survey was chosen due to time, cost and resource constraints. To improve the response rate of data collection, researchers promise anonymity and ask for participation. The survey is uploaded to an online channel, and the link is shared within the researcher's network and social media. Statistical and mathematical methods or computerized analysis using IBM SPSS version 28 and Smart PLS version 4.0

## 4. RESULTS AND DISCUSSION

### 4.1. Research Results

#### 4.1.1. Investment Application Registered with OJK

In Indonesia there is an institution that oversees financial services activities in the Banking, Capital Market (Investment), and IKNB sectors, namely the Financial Services Authority (OJK). Before investing as a potential investor, you must ensure that the investment application has been supervised by the OJK. This is to minimize the occurrence of investment fraud. Currently, there are many applications registered and supervised by OJK. But it does not rule out the possibility that there are still applications that are not supervised and registered by the OJK.

The collection period starts from July 10, 2023 to August 30, 2023. Researchers sent questionnaires using non-probability sampling to people (millennial generation) in Banten, West Java and DKI Jakarta. Link to an electronic questionnaire for users of online investment applications using Google Form. Data collection was obtained by a sample of 535 participants. Of the 535 participants, researchers eliminated 273 who answered not using online investment applications.

From the results of the questionnaire per province, it was obtained for Banten by 45.6%, West Java province by 20.6% and DKI Jakarta Jakarta by 33.8%, with a total of 535 respondents entered. Researchers took the top 9 (nine) investment applications that are known/applied. As many as 34.6% (185) respondents used the Bibit application as the investment application used, 25.6% (137) respondents answered using BCA Sekuritas, as many as 17% (91) respondents used Ajaib, as many as 15% (80) respondents used Mandiri Sekuritas, as many as 14% (75) respondents used OVO Invest, as many as 8.6% (46) respondents used Bareksa, as many as 8% (43) respondents used IPOT, as many as 6.2% (33) respondents used MNC Sekuritas, and as many as 3.7% (20) respondents use Mirae Asset as a known/applied online investment application. The investment results used were deposits of 55.3%, Stocks of 71.2%, Bonds of 31.2%, Mutual Funds of 40.6%, Precious Metals (gold) of 62.1%, P2P Lending of 6.5% and Property of 42.6%, from respondents' data it was seen that investment interest varied.

#### 4.1.2. Analysis Description

In this study, researchers collected 535 respondents, and among the data, only 262 could be used. Therefore, further analysis of 262 respondents will be carried out. In gender identification, researchers found that 122 respondents were women (47%), and 140 respondents were men (53%). Data on marital status showed that 94 respondents were married (36%), 159 respondents were single (61%), and 9 respondents chose other (3%).

Because respondents, people who use online investments, are mostly in the age group of 18-23 years, namely 108 respondents (41%), followed by the age group of 24-29 years 74 respondents (28%). Other age groups were 42 respondents in the age group 30-35 years (16%), and 20 respondents in the age group 42-49 years (8%). The last age group is 12 respondents in the age group of 36-41 years (5%), and 6 respondents in the age group of 50 years and over (2%).

Based on the level of education of respondents, most of them graduated from undergraduates, 180 respondents (68.7%), and the rest were postgraduate 19 respondents (7.3%), diploma/baccalaureate was 18 respondents (6.9%), 1 respondent was Ph.D (0.4%), and answered others by 44 respondents (16.8%). Among all

respondents who participated in this study, 103 respondents worked in the private sector (39%), 10 respondents worked as teachers/lecturers (3.8%), millennial generation 89 respondents (34.0%), 30 respondents worked as civil servants (ASN, TNI, Polri, etc.) (11.5%), 7 respondents were employees of SOEs (2.7%), 12 respondents worked as self-employed / traders (4.6%), retirees as many as 1 respondent (0.4%), and there are 10 respondents who are not yet employed (3.8%).

Most of these respondents were paid around Rp5,000,000 – Rp10,000,000 per month, 48 respondents (33%), 38 respondents had wages of Rp10,000,000 and above (26%), 35 respondents were paid Rp3,000,001 – Rp5,000,000 (24%), and 24 respondents received monthly payments of less than Rp3,000,000 (17%). Data on the location of respondents' residences, 63 respondents are domiciled in Banten (43%), 43 respondents are from West Java (30%), and 39 respondents are from DKI Jakarta Jakarta (27%).

#### 4.1.3. Normality Test

To assess normality, samples are evaluated using Skewness and Kurtosis. Skewness evaluates the symmetric or non-symmetric distribution of a variable. The skewed distribution is when the variable stretches towards the left or right tail of the distribution. Kurtosis, on the other hand, assesses whether the skewed distribution indicates a narrow distribution. Asymmetry and kurtosis values between -2 and +2 are considered acceptable to prove a normal univariate distribution (George & Mallery, 2019). All measured items are based on a Likert type scale, and the absolute value of the skew index ranges from -1.033 and the value of the Absolute Kurtosis index is up to 1.246.

#### 4.1.4. Partial least squares

The Cronbach alpha coefficient is obtained for each item of the questionnaire according to the construction studied. The table reveals results for each of the investigative model constructs for outside loading, Cronbach alpha, composite reliability, and convergent validity measures of the extracted mean variance (AVE). The Cronbach alpha of any construction exceeds the recommended threshold of 0.700. Convergent validity is acceptable because the average extracted variance (AVE) is more than 0.500. For practical significance, outer loading greater than 0.50 is considered necessary (Hair et al., 2009). Results from 7 constructions analyzed for Outer loading; 0.784 and 0.950, for Cronbach alpha; 0.812 and 0.923, for composite reliability 0.904 and 0.947, and convergent validity at construct levels between AVE 0.758 and 0.905. An AVE value above 0.50 indicates that, on average, the construct explains more than half of the variance of the indicator. The results obtained for all constructs mostly between acceptable parameters are presented in the Table.

**Table 1:** Outer loading, Cronbach's alpha, Composite Reliability, and AVE.

No	Variable	Indicator	Outer loading	Cronbach's Alpha	CR	BIRD
1	Performance expectations	PE1	0.916	0.893	0.949	0.904
2		PE2	0.937			
3		PE3	0.924			
5	Business expectations	EE1	0.925	0.923	0.951	0.866
6		EE2	0.950			
7		EE3	0.916			
8	Social influence	SI1	0.918	0.888	0.930	0.815
9		SI2	0.930			
10		SI3	0.860			
12	Facilitates conditions	FC1	0.911	0.884	0.928	0.812
13		FC2	0.921			
14		FC3	0.871			
16	Belief	T1	0.907	0.812	0.914	0.842
17		T2	0.928			
20	Perceived Risk	PR1	0.909	0.842	0.904	0.758
21		PR2	0.913			
22		PR3	0.784			
24	Intention to Use	IT1	0.916	0.916	0.947	0.857
25		IT2	0.937			
26		IT3	0.924			

#### 4.1.5. Discriminant Validity

Discriminant validity is the extent to which a construct is completely different from another construct based on empirical standards (Hair et al., 2017). By determining the validity of the discriminant will show that a construct is unique that captures phenomena that are not represented by other constructs. The validity of the discriminant was also assessed by the Heterotrait-Monotrait Ratio (HTMT) correlation. If the HTMT value is greater than 1, then it can be concluded that there is less discriminant validity (Ab Hamid et al., 2017).

**Table 2:** HTMT Value for Discriminant Validity.

	Performance Expectations	Facility Conditions	Application of Investment	Risk	Business Expectations	Social Influence	Belief
Performance Expectations	0.902						
Facility Conditions		0.839					
Application of Investment	0.775		0.809				
Risk	0.795	0.840		0.746			
Business Expectations	0.833	0.819	0.723				
Social Influence	0.695	0.670	0.593	0.817	0.664		
Belief	0.811	0.737	0.664	0.820	0.834	0.638	

The validity of the discriminant is also assessed by the Fornell-Lacker Criterion. Using this method, the square root of the mean variance is extracted (AVE) and the latent construction correlation is compared. A latent construct should describe better the variance of its own indicator than the variance of any other latent construct. Therefore, the square root of any AVE construct must have a greater value than the correlation with other latent constructs (Ab Hamid et al., 2017).

**Table 3:** Fornell-Lacker Criteria for Discriminant Validity.

	Performance Expectations	Facility Conditions	Application of Investment	Risk	Business Expectations	Social Influence	Belief
Performance Expectations	0.931						
Facility Conditions	0.815	0.901					
Application of Investment	0.714	0.756	0.925				
Risk	0.725	0.753	0.727	0.871			
Business Expectations	0.757	0.728	0.655	0.668	0.951		
Social Influence	0.644	0.607	0.549	0.718	0.602	0.903	
Belief	0.706	0.627	0.575	0.688	0.715	0.556	0.917

#### 4.1.6. Choleniacity Test

For reflective models, the latent construct behaves as a single predictor of each indicator, which is the dependent construct. Therefore, in reflective measurement models, multicollinearity is not a problem. Regardless of whether the model is reflective or formative, SmartPLS calculates the variance inflation factor (VIF) for the outer model (Hair et al., 2017). Although the researchers' model studied was a reflective model, a VIF collinearity test was carried out. As presented in Table 4. respectively the tolerance value (VIF) of the predictor construct (Item) is higher than 0.20 and less than 5 (Hair et al., 2017).

**Table 4:** VIF value.

	Bright
EE1	3.651
EE2	4.725
EE3	2.988
FC1	2.859
FC2	3.095
FC3	2.087
P1	3.047
P2	3.706
P3	3.132
PE1	2.872
PE2	2.872
PR1	2.563
PR2	2.373
PR3	1.655
SI1	3.065
SI2	2.777
SI3	2.227
T1	1.879
T2	1.879

#### 4.1.7. Path Model and R<sup>2</sup>

The coefficient of determination R<sup>2</sup> obtained for the dependent construct Intention to Use is 0.645 this value is a measure of the prediction power of the model and is calculated as a quadratic correlation between the actual value and the prediction of a particular dependent construct (Hair et al., 2017). R<sup>2</sup> values range from 0 to 1, with higher levels indicating better prediction accuracy. In the intention to use the study, R<sup>2</sup> values above 0.20 are

considered high (Hair et al., 2017).

#### 4.1.8. Structural Relationships

To analyze the structural relationship between variables and constructs, structural equation modeling (SEM) measurements were carried out using the Smart-PLS application. For research analysis, the number of bootstrap samples applied is at least 5,000. The critical value for the two-sided test is 1.96 with a significance level of 0.05%. Likewise, the p value must be smaller than 0.05 to have a significance level or 0.05% (Hair et al., 2017).

**Table 5:** Results of Structural Models (Bootstrapping).

Path	$\beta$ -values	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values	Result
Performance Expectations -> Investment Application	0.120	0,080	1.505	0.133	No Effect
Expectations of Investment Application >	0.171	0.087	1.964	0.050	No Effect
Social Influence -> Investment Application	-0,058	0.064	0.899	0.369	No Effect
Facilitating Investment Implementation > Conditions	0.332	0.094	3.523	0.000	Influential
Trust -> Investment Application	-0.046	0.068	0.677	0.498	No Effect
Risk -> Investment Application	0.347	0.079	4.399	0.000	Influential

H1: Performance expectations have no effect on the intention to implement online investment among Indonesians, especially Banten, West Java and DKI Jakarta.

The critical value for the two-sided test is 1.96 with a significance level of 0.05%. Likewise, the p value must be smaller than 0.05 to have a significance level or 0.05% (Hair et al., 2017). In other words, a t value of more than 1.96 and a p value of 0.05% or less are considered to support the established hypothesis. According to the PLS Bootstrapping technique, the performance expectation obtained  $t = 1.505$  and p value 0.133 the results confirm the absence of significant evidence to support the hypothesis proposed in this study. Likewise, the path coefficient PE = 0.120 is achieved.

H2: Business expectations do not affect the intention to implement online investment among the people of Indonesia, especially Banten, West Java and DKI Jakarta.

The critical value for the two-sided test is 1.96 with a significance level of 0.05%. Likewise, the p value must be smaller than 0.05 to have a significance level or 0.05% (Hair et al., 2017). In other words, a t value of more than 1.96 and a p value of 0.05% or less are considered to support the established hypothesis. According to the PLS Bootstrapping technique, the effort expectation is obtained  $t = 1.964$  and p value 0.050. The results confirmed the absence of significant evidence to support the hypothesis proposed in this study. Likewise, the path coefficient EE = 0.171 is achieved.

H3: Social influence has no effect on the intention to implement online investment among Indonesians, especially Banten, West Java and DKI Jakarta.

The critical value for the two-sided test is 1.96 with a significance level of 0.05%. Likewise, the p value must be smaller than 0.05 to have a significance level or 0.05% (Hair et al., 2017). In other words, a t value of more than 1.96 and a p value of 0.05% or less are considered to support the established hypothesis. According to the PLS Bootstrapping technique, social influence is obtained  $t = 0.899$  and p value 0.369. These results confirm the absence of significant evidence, not supporting the hypothesis proposed in the study. Likewise, the SI path coefficient = -0.058 is achieved.

H4: Facilitating conditions has a significant effect on the intention to implement online investment among the people of Indonesia, especially Banten, West Java and DKI Jakarta.

The critical value for the two-sided test is 1.96 with a significance level of 0.05%. Likewise, the p value must be smaller than 0.05 to have a significance level or 0.05% (Hair et al., 2017). In other words, a t value of more than 1.96 and a p value of 0.05% or less are considered to support the established hypothesis. According to the PLS Bootstrapping technique, the facilitation condition is obtained  $t = 3.525$  and p value 0.000. The results confirm the existence of significant evidence to support the hypothesis proposed in this study. Likewise, the path coefficient FC = 0.332 is achieved.

H5: Trust has no effect on the intention to implement online investment among the people of Indonesia, especially Banten, West Java and DKI Jakarta

The critical value for the two-sided test is 1.96 with a significance level of 0.05%. Likewise, the p value must be smaller than 0.05 to have a significance level or 0.05% (Hair et al., 2017). In other words, a t value of more than 1.96 and a p value of 0.05% or less are considered to support the established hypothesis. As per PLS Bootstrapping technique, confidence obtained  $t = 0.677$  and p value 0.498. These results confirm the absence of significant evidence, not supporting the hypothesis proposed in the study. Likewise, the path coefficient T = -



0.046 is achieved.

H6: The perceived risk has a significant effect on the intention to implement online investment among the people of Indonesia, especially Banten, West Java and DKI Jakarta.

The critical value for the two-sided test is 1.96 with a significance level of 0.05%. Likewise, the p value must be smaller than 0.05 to have a significance level or 0.05% (Hair et al., 2017). In other words, a t value of more than 1.96 and a p value of 0.05% or less are considered to support the established hypothesis. According to the PLS Bootstrapping technique, risk perception is obtained  $t = 4.399$  and p value 0.000. The results confirm the existence of significant evidence to support the hypothesis proposed in this study. Likewise, the path coefficient  $PR = 0.347$  is achieved.

## 4.2. Discussion

The relationship between performance expectations between intentions to use correlated insignificantly ( $H1 =$  unsupported). Performance expectations have been determined as a key factor influencing behavioral intentions to use new technologies (Arias-Oliva et al., 2019; Engotoit et al., 2016; Sánchez-Torres, 2017). A recent study by (Purwanto & Loisa, 2020), found that performance expectations have an insignificant intention to use the mobile banking system in Indonesia. The results obtained in this investigation revealed that online investment applications perform less well, they do not use online investment applications to conduct transactions and financial services.

Business expectations are the level of ease associated with using a system (Lee et al., 2018). The relationship between effort expectations and intent to use correlates significantly ( $H2 =$  unsupported). This finding is supported by previous research that also uses the UTAUT framework, (Yusof et al., 2018) which found that effort expectations have an insignificant influence on behavioral intentions to adopt block chain technology. The results obtained in this investigation revealed that users do not have a clear interaction and understanding of how to use this technology.

Social influence is defined as the degree of influence of other people's opinions on the adoption of a particular system. Social influence as a direct determinant of the intention to use is represented as a subjective standard of TRA, TAM2, SDG; social factors in MPCUs and imagery in IDT (Venkatesh, Morris, Davis, et al., 2003). The table shows that ( $H3 =$  not supported). These findings support results from (Rodriguez-Lluesma et al., 2021) and (San Martín & Herrero, 2012). Yang found that social influence had no significant relationship with intention. This means that most respondents claim to have their own initiative to use online investment applications. This statement is supported by (Chang & Chen, 2008) the millennial generation is basically known as trendsetters who often take the initiative to adopt new products rather than taking decisions with the influence of others.

Facilitating conditions are defined as the extent to which an individual believes that organizational and technical infrastructure exists to support the use of the system (Venkatesh, Morris, Davis, et al., 2003). For this research study, the construct of facilitation conditions was measured by having the resources, knowledge and ability how to get help to make online investment applications. The relationship between the Facilitate condition and the intention to use correlates significantly ( $H4 =$  supported). This statement is supported by (Ahmed et al., 2017; Madan & Yadav, 2016) regarding facilitation conditions, previous studies confirmed similar results to this study where facilitation conditions are an influential factor in behavioral intentions to adopt new technologies.

Trust is defined as the belief that the other party will behave in a socially responsible way, and, thus, will meet the expectations of the believing party without taking advantage of its vulnerability (Pavlou, 2003). The relationship between trust and intention to use correlated insignificantly ( $H5 =$  not supported). This finding is supported by previous research is (Manuel, 2019). Trust in online applications does not affect the interest in stock investment.

For this research study, the perceived risk construct was measured by users' perception that conducting financial transactions using new technologies (online investments) would lead to possible losses to their performance, finances, and time. The result of this study is that the relationship between risk perception and applying intention correlates significantly ( $H6 =$  supported).

## 5. CONCLUSION

The application of online investment among Indonesians, especially in Banten, West Java, and DKI Jakarta, several factors have been identified to understand individual intentions related to online investment. First, performance expectations have not been shown to have any effect on the intention to make online investments. Similarly, business expectations and social influence did not have a significant impact on the decision of people in the area to engage in online investing. Conversely, factors such as facilitating conditions and perceived risks have been shown to have a greater influence on people's intentions to implement online investments. Facilitating

conditions positively shows a significant impact, while perceived risk also has an important role in shaping the decision. In addition, trust has not been shown to have an effect on people's intentions in adopting online investment in the region.

For the Millennial Generation, it is advisable to explore knowledge about online investment in order to be able to apply it consistently in everyday life. By making regular investments, they can broaden their understanding of the financial world and optimize earning potential. Meanwhile, for Investors, the advice is considered as a guideline and guide to expand the investment portfolio, both in the online context and investment in general. The research also highlights the limitations found, providing important insights for future research. Future research may consider the use of covariance and comparison of findings to evaluate the impact of different analytical approaches on research results.

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