

# FACTORS THAT INFLUENCE THE SELECTION OF A MOBILE STOCK TRADING APPLICATION

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## ABSTRACT

The public may select from a plethora of competing mobile stock trading application. Everyone's perspective on a certain application is further differentiated by the benefits and disadvantages that each one has to offer. Therefore, this study aims to examine the variables that impact an individual's choice when selecting a mobile stock trading application that they opt to use or currently utilizing. This study offers an integrated theoretical framework employing a modified Technology Acceptance Model and survey data from 109 Indonesian users of mobile stock trading applications using the structural equation modeling method. Six constructs—ease of use, user interface experience, perceived advantages, security and privacy risk, social impact, and trust—are included in the recommended model. According to the findings, social influence and trust significantly impact how mobile stock trading applications are chosen in Indonesia. Companies should concentrate on factors that encourage app adoption, such as social impact strategies, transparency, and top-notch customer service, in order to improve app utilization. The study is restricted to users who reside in Indonesia, however future studies may cover a larger audience and additional samples.

**Keywords:** *Mobile Stock Trading Application, Intention, User Behavior, Retail Investors, Choice*

## 1. INTRODUCTION

The Indonesian Stock Market has seen an increase in interest for trading and/or investing in recent years. There has been a considerable growth of 275,10% in Single Investor Identification (SID) that has registered to a regulated exchange in Indonesia over the previous four years, according to latest figures based on the investor demographics of the Indonesian Stock Exchange as of July 2022 [1]. The Covid-19 epidemic, which has caused more information technology-based digital platforms to be used or integrated by the public for their everyday activities, is to blame for the recent considerable growth in SIDs [2]. The ease of access from digital investing platforms and the comfort of choosing how to participate in the capital market, in addition to the pandemic, are two of the more important supporting factors that have contributed to this rise [3], [4].

Smartphone users make up the bulk of stock trading app users. More than 20% of all stock transactions by ordinary investors in the United States are reportedly carried out using smartphones [5]. One of the most common securities in Indonesia achieved a share transaction volume that was 77% driven by mobile apps on smartphones [6].

The benefits and drawbacks of each stock trading application differ, which affects how appealing they are to the investor community. The public has its own thoughts and grounds for choosing which stock trading application fulfills the choice of each investor from the variety of stock trading securities that are registered and monitored by the Financial Services Authority. Various stock trading applications have received reviews and ratings from investors. These reviews and ratings provide the particular reasons why users choose to use or stay away from a given stock trading application, which is accessible for download (refer to Table 1).

Each convenience comes a potential issue: the variation of these applications can lead to disparities in trading experiences for users. This problem needs to be highlighted and discussed as it can significantly impact the fairness and efficiency of the stock market. It is crucial to address this issue effectively to ensure a level playing field for all investors and prevent any potential harm to the integrity of the market.

This study aims to examine the variables that impact an individual's choice when selecting a

mobile stock trading application that they opt to use or currently utilizing. The results of this study should thereby significantly advance the study of user behavior. Additionally, this study will provide a customer perspective for Indonesia's stock trading securities to help researchers understand the variables that influence user behavior and how to account for them throughout the creation and update stages of mobile applications.

The paper is structured as follows: Part 2 contains the literature review, while Section 3 covers the methodology. Data collection, analysis, measurement, discussion, and findings are all presented in Part 4 before the conclusion is presented in the last section.

## 2. LITERATURE REVIEW

The purpose of this literature review is to critically evaluate and synthesize the existing body of knowledge on mobile stock trading application, with the aim of identifying key themes, controversies, and gaps in the literature. The study will focus on the features of a mobile stock trading application, the Theory of Planned Behavior, the Technology Acceptance Model, perceived risk and benefits, trust, and social influence to understand the factors influencing the adoption of mobile stock trading applications. The findings of this study will help mobile stock trading application developers, investors, and regulators to develop strategies that can improve the adoption of mobile stock trading applications.

### 2.1 Features of a Mobile Stock Trading Application

As user tastes change, more and more individuals are choosing to manage their money using a tablet or smartphone, which has coincided with the emergence of investing applications. Trading platforms for stocks have welcomed this change by putting more effort into making their mobile apps more user-friendly [7]. The ease of app use, user interface experience, security and privacy concerns, investment analysis information, and app performance and speed are the five key characteristics Malhotra [8] highlighted as defining a mobile stock trading application. Malhotra [8] also reported that retail investors exhibited an upsurge in their stock market investments through mobile trading apps during the epidemic. This trend can be attributed to the essential characteristics of these trading apps.

Each of the aforementioned key components plays a vital role in laying the groundwork for a strong mobile stock trading application. The ease of using an application is a key indicator of user happiness and how much effort is required on the part of the user to utilize the program, both of which tend to increase user adoption and public preference [8], [9]. The first impression and adoption of the consumers you wish to target are greatly influenced by the user interface. An attractive user interface increases the likelihood that users will use it for the first time [8]. Perceptions of data security and confidentiality have a significant impact in establishing trust, satisfaction, and being a major effect on user intents to use an application, according to Balapour et al. [10]. In fact, Balapour et al. [10] go on to explain that the majority of application terminations take place as a result of poor security performance and failure to protect user data. To improve the user experience for transactions in areas like notifications, watchlists, and market updates, stock trading systems frequently synchronize information and analysis between their desktop and mobile apps [7]. Users should prioritize finding a mobile stock trading app with the most comprehensive and recent financial news and analysis findings [8]. Hillmer et al. [11] conducted an analysis on information and found that the stock market also has a tendency to respond swiftly to specific information from market sentiment. Investors need to be aware of these kinds of emotions since they depend on them to act swiftly [12]. This depends on how well performance settings work and how quickly the application system processes data [8].

### 2.2 Theory of Planned Behavior

The Theory of Planned Behavior (TPB), developed by Ajzen [13] builds on the Theory of Reasoned Action [14]. It stated that a person's behavior in performing a particular action is determined by their behavioral intentions, which are influenced by three key factors: attitude, subjective norms, and perceived behavioral control. TPB has been proven to be helpful in identifying influencing elements that have a positive association to user behavior in a number of earlier research using various technologies [4], [15].

### 2.3 Technology Acceptance Model

The Technology Acceptance Model (TAM), proposed by Davis [16], [17], is a research framework based on the Theory of Reasoned Actions [14]. It initially posited that technology

system acceptance is influenced by two main factors but was later refined to include Perceived Usefulness, Perceived Ease of Use, Attitude Towards Using, Behavioral Intention to Use, and Actual System Use [17]. The study by Sujatmiko et al. [18] on user satisfaction with a mobile stock trading app found that perceived utility and ease of use affect behavioral intention, which in turn significantly influences actual usage.

#### 2.4 Perceived Risk

The definition of perceived risk is the degree of uncertainty [19] or, in this study's context, an unanticipated anticipation of loss felt by the user that differs from the predicted expectation [20]. Perceived risk in mobile stock trading refers to the possible loss and risk felt by users when performing specific tasks to complete and realize a transaction [4]. Some of those risks include the potential for users to be exposed to hackers when giving personal information [21], [22]. Another concern is that companies may disclose customer profiles to other industry businesses and leverage the data for more aggressive sales strategies [23].

#### 2.5 Perceived Benefits

A collection of advantages and benefits that may be sensed can persuade people to employ a particular technology [24] and impact their behavioral intentions toward that technology [25]. Lower brokerage costs, quicker transaction execution, and better transparency when stock transactions are carried out via mobile applications are considered benefits in the context of mobile stock trading [4]. To enhance the user experience for transactions, desktop stock trading systems frequently port functionality from their desktop versions to their mobile applications. These features include notifications, watchlists, and market updates. Users should also search for the most recent financial news and analysis as important aspects in a mobile stock trading app [7], [8].

#### 2.6 Trust

When conducting online business, a customer assumes a position of vulnerability to the seller in the hopes that the seller would behave honestly and not take advantage of the consumer's fragility [24]. Customers may behave negatively if they have a bad experience during a transaction, which might lead them to stop trusting the supplier and look for alternatives to satisfy their requirements and wants [25]. According to Chong et al. [4], trust significantly influences why investors choose to

utilize mobile stock trading applications. Trust is a crucial component of online commerce, online services, and online communication.

#### 2.7 Social Influence

Social influence is a circumstance where it is expected that changes in an individual's ideas would directly affect them through the opinions of peers who are related to them [26] or, in this example, through the usage of a particular technology [27]. Hsu & Lin [28] categorize social influence into two types: normative influence and informational influence. A situation known as informative influence occurs when a consumer interprets information as knowledge gained from a group of friends or references. A consumer experiences normative influence when they alter their beliefs, actions, or behaviors in an effort to fit in with others. Social media influencers frequently encourage their followers to adopt mobile stock trading apps by promoting them to their networks [29].

#### 2.8 Intention to Use

Intention is characterized as a measure of a person's willingness to put forth attempt and the amount of effort they desire to expend in order to accomplish an activity [13]. A trustworthy predictor variable that can indicate whether customers really utilize a technology is its intention to use it [30]. Customers' intentions and desire to use new technology can be crucial since, on the one hand, it can encourage real technology usage, and, on the other, it can lead to good recommendations from consumers to their peers on the technology utilized [31].

#### 2.9 User Behavior

In the context of technology, user behavior refers to any intentional or unintentional activity a person does in relation to a technological system [32]. The Technology Acceptance Model (TAM), introduced by Davis [17], is a model based on behavioral intention that demonstrates that an individual's intention to accept technology is a strong predictor of its actual usage. The actual usage of some technologies is influenced by the actions and motives we use in dealing with them [33].

### 3. RESEARCH METHODOLOGY

The purpose of this research methodology section is to outline the approach taken to address the research questions, including the research design, analysis methods and data collection.

### 3.1 Proposed Research Model

Based on the relevant studies mentioned in the preceding section, certain factors that can affect a user's desire to use and probable behavior while choosing a mobile stock trading application are listed in Table 2, and the suggested study model is shown in Figure 1.

Table 2: Construct and Definition

Construct	Definition
Ease of Use (EU)	How easy or difficult users find it to use a mobile stock trading application and implement it in their daily activities. [8], [17], [34]
User Interface Experience (UIE)	Familiarities with the interactions conducted by users to navigate the interface. [8]
Platform Benefits (B)	Mobile stock trading application advantages that can be felt by users. [8], [23]
Security & Privacy Risk (SPR)	The risk of experiencing financial or personal data loss in using a mobile stock trading application. [20]–[23]

Construct	Definition
Social Influence (SI)	A situation where an individual, group, or community impacts the users' influence on a specific mobile stock trading application. [27], [29]
Trust (T)	Users' belief in the ability of a certain mobile stock trading application. [4], [24], [25]
Intention to Use (IU)	Users' intention, readiness, and acceptance of using a mobile stock trading application of their preference. [13], [30]
Usage Behavior (UB)	Users' actual carried out actions towards usage of a mobile stock trading application of their preference. [32]

The study model's architecture was created by modifying a number of methods from studies [4], [33] and built from aspects that reflect a mobile stock trading application [8].

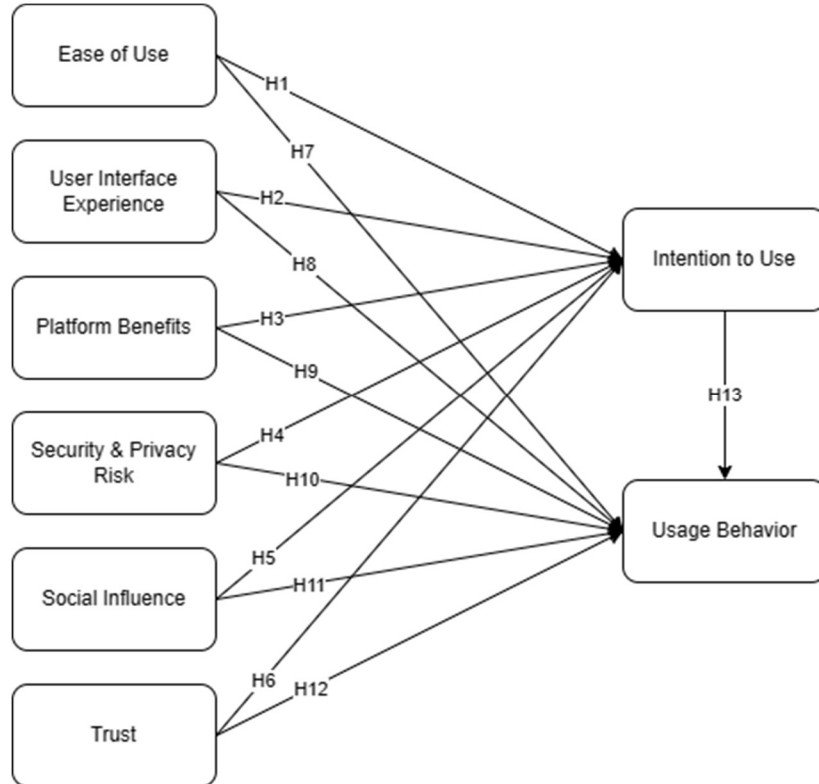


Figure 1: Proposed Research Model

### 3.2 Hypothesis Development

Table 3 presents the hypotheses crafted to examine the factors that impact users' intention and behavior towards using a mobile stock trading application of their choice.

Table 3: List of Hypotheses

H1	Ease of use (EU) has a significant effect on intention to use (IU) towards using a mobile stock trading application.
H2	User interface experience (UIE) has a significant effect on intention to use (IU) towards using a mobile stock trading application.
H3	Platform benefits (B) have a significant effect on intention to use (IU) towards using a mobile stock trading application.
H4	Security & privacy risk (SPR) has a significant effect on intention to use (IU) towards using a mobile stock trading application.
H5	Social influence (SI) has a significant effect on intention to use (IU) towards using a mobile stock trading application.
H6	Trust (T) has a significant effect on intention to use (IU) towards using a mobile stock trading application.
H7	Ease of use (EU) has a significant effect on usage behavior (UB) towards using a mobile stock trading application.
H8	User interface experience (UIE) has a significant effect on usage behavior (UB) towards using a mobile stock trading application.
H9	Platform benefits (B) has a significant effect on usage behavior (UB) towards using a mobile stock trading application.
H10	Security & privacy risk (SPR) has a significant effect on usage behavior (UB) towards using a mobile stock trading application.
H11	Social influence (SI) has a significant effect on usage behavior (UB) towards using a mobile stock trading application.
H12	Trust (T) has a significant effect on usage behavior (UB) towards using a mobile stock trading application.
H13	The intention to use (IU) has a significant impact on usage behavior (UB) towards using a mobile stock trading application.

### 3.3 Data Collection

An online questionnaire platform using a quantitative technique and closed-ended questions was used to collect the data for this investigation. The online survey was sent out at random to users of an Indonesian mobile stock trading app that can be downloaded from the Play Store and the App Store. The response was graded on a Likert scale of 1 to 5,

with 1 denoting a strong disagreement and 5 denoting a strong agreement.

### 3.4 Data Analysis

The responses were analyzed for validity, reliability, and hypothesis testing using Smart PLS 3.9 and SPSS. In Table 5, each notion that respondents provided is represented by an indicator.

## 4. FINDINGS AND DISCUSSION

An online questionnaire platform using a quantitative technique and closed-ended questions was used to collect the data for this investigation. People who have used an Indonesian mobile stock trading application that can be downloaded from the Play Store were given the online questionnaire at random.

### 4.1 Demography

Table 4 displays the complete demography of the respondents.

Table 4: Demography of The Respondents

Measure	Item	Freq.	Percentage
User's gender	Male	83	76,1%
	Female	26	23,9%
User's age	17-24 years	81	74,3%
	25 - 34 years	17	15,6%
	35 - 44 years	6	5,5%
	45 -54 years	4	3,7%
	55 - 64 years	1	0,9%
	65 years or above	0	0%
User's Residence	Banten	42	38,5%
	Jakarta	21	19,2%
	West Java	12	11%
	Central Java	8	7,3%
	East Java	6	5,5%
	Special Region of Yogyakarta	4	3,6%
	North Sumatra	3	1,8%
	South Sumatra	2	1,8%
	Lampung	2	1,8%
	Bali	2	1,8%
	South Kalimantan	2	1,8%
	Aceh	1	0,9%
	Riau	1	0,9%
	Jambi	1	0,9%
	East Kalimantan	1	0,9%
	Maluku	1	0,9%

According to the demographics, a large percentage of respondents' households countrywide

have utilized a mobile stock trading application, making this research viable.

#### 4.2 Measurement Model

The structural model's validity and reliability were evaluated in comparison to the replies.

The Pearson Correlation Coefficient was used to conduct the validity test. A correlation value of at least 0,5 is considered acceptable [35]. The reliability test's measurement was made using Cronbach's Alpha in the meanwhile. Cronbach's Alpha should be larger than 0,6 to be considered acceptable [36]. Table 4 displays the Pearson Correlation Coefficient and Cronbach's Alpha values for each indicator for the specified construct.

Table 4: Validity and Reliability Test

Construct	Indicator	Pearson Correlation Coefficient	Cronbach's Alpha
EU	EU1	0,879	0,826
	EU2	0,851	
	EU3	0,790	
	EU4	0,718	
UIE	UIE1	0,812	0,865
	UIE2	0,838	
	UIE3	0,800	
	UIE4	0,755	
B	B1	0,640	0,728
	B2	0,883	
	B3	0,770	
	B4	0,638	
SPR	SPR1	0,779	0,794
	SPR2	0,837	
	SPR3	0,688	
	SPR4	0,829	
SI	SI1	0,881	0,874
	SI2	0,899	
	SI3	0,875	
	SI4	0,751	
T	T1	0,837	0,819
	T2	0,799	
	T3	0,880	
	T4	0,697	
IU	IU1	0,871	0,800
	IU2	0,793	

Construct	Indicator	Pearson Correlation Coefficient	Cronbach's Alpha
	IU3	0,845	
	IU4	0,861	
UB	UB1	0,813	0,821
	UB2	0,839	
	UB3	0,809	
	UB4	0,698	

The validity test result, which is displayed in Table 4, indicates that all of the indicators are reliable and have all achieved appropriate Pearson Correlation Coefficient values of 0,5 or above. In the meanwhile, Table 4's reliability test result indicates that all constructions are trustworthy when used, with a Cronbach's Alpha acceptable value of 0,6 or above.

#### 4.3 Structural Model

Figure 2's graphic shows the results, with supported hypotheses shown by a bold line and unsupported hypotheses denoted by a dotted line. The theories are summarized in Table 5. The following results of the hypothesis testing are described in detail:

- H1 (EU → IU)  
Ease of Use (EU) does not have a significantly positive effect on Intention to Use (IU) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,112, Beta=0,183).
- H2 (UIE → IU)  
User Interface Experience (UIE) does not have a significantly positive effect on Intention to Use (IU) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,799, Beta=-0,035).
- H3 (B → IU)  
Platform Benefits (B) does not have a significantly positive effect on Intention to Use (IU) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,820, Beta=-0,018).
- H4 (SPR → IU)

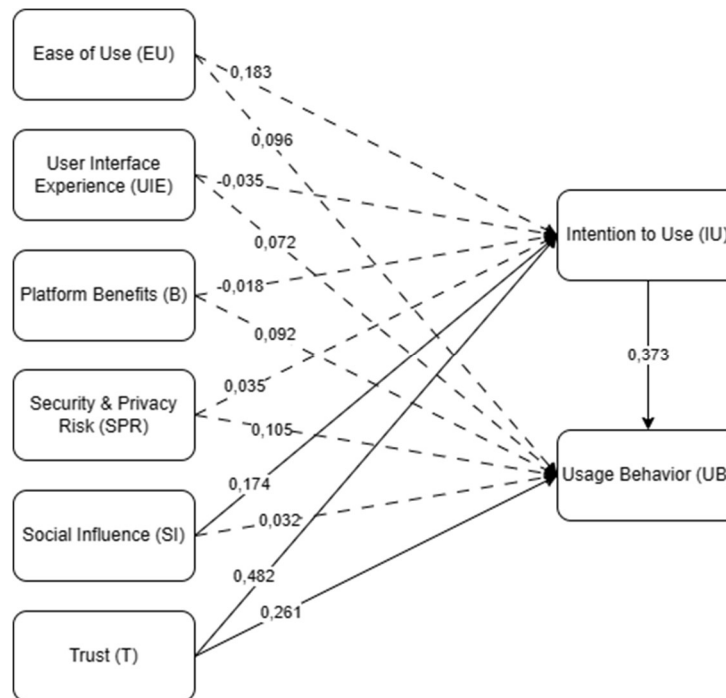


Figure 2: Hypothesis Test Results

Security & Privacy Risk (SPR) does not have a significant positive effect on Intention to Use (IU) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,788, Beta=0,035).

- H5 (SI → IU)

Social Influence (SI) has a significant positive effect on Intention to Use (IU) in selecting mobile stock trading applications. This hypothesis is supported. (P-value=0,044, Beta=0,174).

- H6 (T → IU)

Trust (T) has a significantly positive influence on Intention to Use (IU) in selecting mobile stock trading applications. This hypothesis is supported. (P-value=0,000, Beta=0,482).

- H7 (EU → UB)

Ease of Use (EU) does not have a significant positive effect on Usage Behavior (UB) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,366, Beta=0,096).

- H8 (UIE → UB)

User Interface Experience (UI) does not have a significant positive effect on Usage

Behavior (UB) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,501, Beta=0,072).

- H9 (B → UB)

Platform Benefits (B) does not have a significant positive effect on Usage Behavior (UB) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,296, Beta=0,092).

- H10 (SPR → UB)

Security & Privacy Risk (SPR) does not have a significant positive effect on Usage Behavior (UB) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,265, Beta=0,105).

- H11 (SI → UB)

Social Influence (SI) does not have a significant positive effect on Usage Behavior (UB) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,032, Beta=0,734).

- H12 (T → UB)

Trust (T) has a significant positive effect on Usage Behavior (UB) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,038, Beta=0,261).

- H3 (IU → UB)  
Intention to Use (IU) has a significant positive effect on Usage Behavior (UB) in selecting mobile stock trading applications. This hypothesis is not supported. (P-value=0,003, Beta=0,373).

Table 5: Hypothesis Test Results

Hypothesis	Path Coefficient	P-Value	Result
H1: EU → IU	0,183	0,112	Rejected
H2: UIE → IU	-0,035	0,799	Rejected
H3: B → IU	-0,018	0,820	Rejected
H4: SPR → IU	0,035	0,788	Rejected
H5: SI → IU	0,174	0,044	Significantly Positive
H6: T → IU	0,482	0,000	Significantly Positive
H7: EU → UB	0,096	0,366	Rejected
H8: UIE → UB	0,072	0,501	Rejected
H9: B → UB	0,092	0,296	Rejected
H10: SPR → UB	0,105	0,265	Rejected
H11: SI → UB	0,032	0,734	Rejected
H12: T → UB	0,261	0,038	Significantly Positive
H13: IU → UB	0,373	0,003	Significantly Positive

The R<sup>2</sup> coefficient indicates that the proposed model accounts for 55.5% of the variation in the intention to use a mobile stock trading app based on user preference.

#### 4.4 Discussion

Using an integrated framework, the current study investigates investors' intentions to use mobile stock trading. On the intention to use and usage behavior of a mobile stock trading application, the impacts of six factors—namely, ease of use, user interface behavior, platform advantages, security and privacy risk, social influence, and trust—are examined. Below is a discussion of the findings.

Regarding the determinants of intention to use, social influence and trust are found to positively influence the intention to use while the remaining (i.e., ease of use, user interface experience, platform benefits, and security and privacy risk) have a negative correlation. Meanwhile, regarding the determinants of usage behavior, trust is found to positively influence usage behavior while the remaining (i.e., ease of use, user interface experience, platform benefits, security and privacy risk, and social influence) have a negative correlation. Similar findings (i.e., social influence and trust) have been reported in Chong et al. [4]. Yet the remaining (i.e., ease of use, user interface experience, platform benefits, and security and privacy risk) are inconsistent with the literature [4], [8].

The findings demonstrate a substantial correlation between social influence and the desire to utilize a mobile stock trading application. Social influence is an important factor in determining an individual's intention to use a particular technology or service, especially when it comes to mobile stock trading applications. Positive recommendations and feedback from peers or experts can enhance the perceived value and credibility of the app, leading to an increase in the individual's intention to use it. This finding is consistent with earlier study by Chong et al. [4] who discovered that social influence influences people's intentions to use stock apps. Users may be persuaded to use a particular stock app by recommendations from family, friends, or acquaintances who already use it, as well as by content producers, influencers, or artists who use and promote the app. This influence is crucial since it may lead to increased app usage. These social ties and referrals may have a significant impact on a user's decision to use a certain stock app.

The findings also demonstrate a strong correlation between trust and the intention to use and usage patterns of mobile stock trading depending on preference. Trust in mobile stock trading applications is an important factor in determining users' intention and actual usage behavior, as users who perceive high levels of trust are more likely to engage in frequent and sustained usage, while those who lack trust may discontinue usage. This outcome is consistent with a prior study by Chong et al. [4] that discovered Trust is a key factor in determining how often users utilize stock applications. When users feel safe and have confidence in the app's ability to manage their data appropriately, they are more inclined to utilize it. Establishing confidence in the platform is a crucial technique for promoting stock trading using applications. Therefore, it is crucial for service



providers to make sure that both their platform and clients have a good experience.

#### 4.5 Implication

This study has several implications for the future development of mobile stock trading applications. First, companies should focus on features that encourage customers to use their applications, such as displaying customer testimonials and connecting with social networking platforms. They can also collaborate with influencers or titans to publicize their app and implement social marketing strategies. These solutions enable businesses to increase user attraction by leveraging the influence of recommendations and social support.

Second, providing transparent and accurate information about security features and privacy policies, implementing multi-factor authentication, providing customer support, collaborating with third-party security firms, and delivering first-rate customer service can help build trust and confidence in mobile stock trading applications.

#### 5. CONCLUSION

This study was conducted to pinpoint elements that influence a user's decision to use and their actions when using a favorite mobile stock trading application. It was discovered that, out of the seven variables tested, social influence and trust had the biggest effects on a user's intention to use, while trust and intention to use had the biggest effects on a user's behavior.

The limitations of this study is that it only looked at a limited subset of users in Indonesia. Additional study may be conducted in Indonesia with larger audiences, in other circumstances, with more samples, and to determine what factors affects a user in choosing a mobile stock trading application to use.

#### REFERENCES:

- [1] Bursa Efek Indonesia, "PT Kustodian Sentral Efek Indonesia - Demografi Investor," 2022. [https://www.ksei.co.id/publications/demografi\\_investor](https://www.ksei.co.id/publications/demografi_investor) (accessed Mar. 23, 2022).
- [2] W. D. Atmaja and S. Widoatmojo, "PENGARUH MOTIVASI, PERSEPSI RISIKO DAN PENGETAHUAN INVESTASI TERHADAP MINAT BERINVESTASI DI MASA PANDEMI COVID-19," *Jurnal Manajerial dan Kewirausahaan*, vol. III, pp. 641–648, 2021, Accessed: Mar. 22, 2022. [Online]. Available: <https://journal.untar.ac.id/index.php/JMDK/article/view/13136/8022>
- [3] A. D. Beldad and S. M. Hegner, "Expanding the Technology Acceptance Model with the Inclusion of Trust, Social Influence, and Health Valuation to Determine the Predictors of German Users' Willingness to Continue using a Fitness App: A Structural Equation Modeling Approach," *Int J Hum Comput Interact*, vol. 34, no. 9, pp. 882–893, Sep. 2018, doi: 10.1080/10447318.2017.1403220.
- [4] L. L. Chong, H. B. Ong, and S. H. Tan, "Acceptability of mobile stock trading application: A study of young investors in Malaysia," *Technol Soc*, vol. 64, Feb. 2021, doi: 10.1016/j.techsoc.2020.101497.
- [5] A. Kalda, B. Loos, A. Previtero, and A. Hackethal, "Smart(Phone) Investing? A within Investor-time Analysis of New Technologies and Trading Behavior," Cambridge, 28363, Jan. 2021. [Online]. Available: <http://www.nber.org/papers/w28363>
- [6] G. Kunjana, "Pengguna Mobile App IPOT Naik Signifikan Saat Pandemi," Nov. 17, 2020. <https://investor.id/market-and-corporate/228334/pengguna-mobile-app-ipot-naik-signifikan-saat-pandemi> (accessed Mar. 22, 2022).
- [7] L. , M. Sette, "The Best Brokers and Robo-Advisors for Mobile Users," May 23, 2022. <https://www.investopedia.com/best-stock-trading-apps-4587996> (accessed Jun. 07, 2022).
- [8] S. Malhotra, "Study of features of mobile trading apps: A silver lining of pandemic," *Journal of Global Information and Business Strategy*, vol. 12, no. 1, pp. 75–80, 2020, doi: 10.5958/2582-6115.2020.00009.0.
- [9] V. Venkatesh and F. D. Davis, "Theoretical extension of the Technology Acceptance Model: Four longitudinal field studies," *Manage Sci*, vol. 46, no. 2, pp. 186–204, 2000, doi: 10.1287/mnsc.46.2.186.11926.
- [10] A. Balapour, H. R. Nikkhah, and R. Sabherwal, "Mobile application security: Role of perceived privacy as the predictor of security perceptions," *Int J Inf Manage*, vol. 52, Jun. 2020, doi: 10.1016/j.ijinfomgt.2019.102063.

- [11] S. C. Hillmer and P. L. Yu, "The market speed of adjustment to new information," *J financ econ*, vol. 7, no. 4, pp. 321–345, Dec. 1979, doi: 10.1016/0304-405X(79)90002-3.
- [12] I. Welch, "The Wisdom of the Robinhood Crowd," Cambridge, MA, 27866, Sep. 2020. doi: 10.3386/w27866.
- [13] I. Ajzen, "The Theory of Planned Behavior," *Organ Behav Hum Decis Process*, vol. 50, no. 2, pp. 179–211, Dec. 1991, doi: [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T).
- [14] I. Ajzen and M. Fishbein, *Understanding Attitudes and Predicting Social Behavior*. Englewoods Cliff, NJ: Prentice-Hall, 1980.
- [15] M. Citra Sondari and R. Sudarsono, "Using Theory of Planned Behavior in Predicting Intention to Invest: Case of Indonesia Article Information," *International Academic Research Journal of Business and Technology*, vol. 1, no. 2, pp. 137–141, 2015.
- [16] D. , F. Davis, "A Technology Acceptance Model for Empirically Testing New End-User Information Systems: Theory and Results," MIT, 1986.
- [17] D. , F. Davis, "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology," *MIS Quarterly*, vol. 13, no. 3, pp. 319–340, Sep. 1989, doi: <https://doi.org/10.2307/249008>.
- [18] D. I. Sujatmiko and E. P. L. G. I. Prisma, "Implementasi Technology Acceptance Model 3 (TAM 3) terhadap Kepuasan Pengguna Aplikasi Investasi dan Trading Saham (Studi Kasus: Aplikasi Mobile IPOT)," *Journal of Emerging Information System and Business Intelligence (JEISBI)*, vol. 03, no. 1, 2022, [Online]. Available: [https://www.ksei.co.id/files/Statistik\\_Publik\\_Juni\\_2021.pdf](https://www.ksei.co.id/files/Statistik_Publik_Juni_2021.pdf),
- [19] D. F. Cox and S. U. Rich, "Perceived Risk and Consumer Decision-Making: The Case of Telephone Shopping," 1964.
- [20] S. Kamalul Ariffin, T. Mohan, and Y. N. Goh, "Influence of consumers' perceived risk on consumers' online purchase intention," *Journal of Research in Interactive Marketing*, vol. 12, no. 3, pp. 309–327, Oct. 2018, doi: 10.1108/JRIM-11-2017-0100.
- [21] V. L. Johnson, A. Kiser, R. Washington, and R. Torres, "Limitations to the rapid adoption of M-payment services: Understanding the impact of privacy risk on M-payment services," *Comput Human Behav*, vol. 79, pp. 111–122, Feb. 2018, doi: 10.1016/j.chb.2017.10.035.
- [22] Y.-M. Tai and Y.-C. Ku, "WILL STOCK INVESTORS USE MOBILE STOCK TRADING? A BENEFIT-RISK ASSESSMENT BASED ON A MODIFIED UTAUT MODEL," 2013.
- [23] R. Thakur and M. Srivastava, "Adoption readiness, personal innovativeness, perceived risk and usage intention across customer groups for mobile payment services in India," *Internet Research*, vol. 24, no. 3, pp. 369–392, 2014, doi: 10.1108/IntR-12-2012-0244.
- [24] I. Ventre and D. Kolbe, "The Impact of Perceived Usefulness of Online Reviews, Trust and Perceived Risk on Online Purchase Intention in Emerging Markets: A Mexican Perspective," *J Int Consum Mark*, vol. 32, no. 4, pp. 287–299, Aug. 2020, doi: 10.1080/08961530.2020.1712293.
- [25] N. Pappas, "Marketing strategies, perceived risks, and consumer trust in online buying behaviour," *Journal of Retailing and Consumer Services*, vol. 29, pp. 92–103, Mar. 2016, doi: 10.1016/j.jretconser.2015.11.007.
- [26] N. E. Friedkin and E. C. Johnsen, "Social influence and opinions," *J Math Sociol*, vol. 15, no. 3–4, pp. 193–206, Jan. 1990, doi: 10.1080/0022250X.1990.9990069.
- [27] Venkatesh, Thong, and Xu, "Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology," *MIS Quarterly*, vol. 36, no. 1, p. 157, 2012, doi: 10.2307/41410412.
- [28] C. L. Hsu and J. C. C. Lin, "Effect of perceived value and social influences on mobile app stickiness and in-app purchase intention," *Technol Forecast Soc Change*, vol. 108, pp. 42–53, Jul. 2016, doi: 10.1016/j.techfore.2016.04.012.
- [29] M. Rahman, "30 Influencer Keuangan Berpengaruh di Indonesia 2022," May 20, 2022. <https://financer.com/id/blog/influencer-keuangan/> (accessed Jun. 21, 2022).
- [30] T. Teo and M. Zhou, "Explaining the intention to use technology among university students: a structural equation modeling approach," *J Comput High Educ*, vol. 26, no. 2, pp. 124–142, Aug. 2014, doi: 10.1007/s12528-014-9080-3.

- [31] M. Farzin, M. Sadeghi, F. Yahyayi Kharkeshi, H. Ruholahpur, and M. Fattahi, "Extending UTAUT2 in M-banking adoption and actual use behavior: Does WOM communication matter?," *Asian Journal of Economics and Banking*, vol. 5, no. 2, pp. 136–157, Aug. 2021, doi: 10.1108/ajeb-10-2020-0085.
- [32] S. Sukaris, W. Renedi, M. A. Rizqi, and B. Pristyadi, "Usage Behavior on Digital Wallet: Perspective of the Theory of Unification of Acceptance and Use of Technology Models," in *Journal of Physics: Conference Series*, Feb. 2021, vol. 1764, no. 1. doi: 10.1088/1742-6596/1764/1/012071.
- [33] R. Rauniar, G. Rawski, J. Yang, and B. Johnson, "Technology acceptance model (TAM) and social media usage: An empirical study on Facebook," *Journal of Enterprise Information Management*, vol. 27, no. 1, pp. 6–30, 2014, doi: 10.1108/JEIM-04-2012-0011.
- [34] V. Venkatesh, "Determinants of Perceived Ease of Use: Integrating Control, Intrinsic Motivation, and Emotion into the Technology Acceptance Model," *Information Systems Research*, vol. 11, no. 4, pp. 342–365, 2000, doi: 10.1287/isre.11.4.342.11872.
- [35] J. Benesty, J. Chen, Y. Huang, and I. Cohen, "Pearson correlation coefficient," in *Noise reduction in speech processing*, Springer, 2009, pp. 1–4.
- [36] J. F. Hair, W. C. Black, B. J. Babin, and R. E. Anderson, *Multivariate Data Analysis*. Pearson Education Limited, 2013. [Online]. Available: <https://books.google.co.id/books?id=VvXZnQEACAAJ>

## APPENDIX

Table 1: Stock Application Reviews

No.	Mobile Stock App	Review	Factor
1.	Stockbit	Unstable servers, spikes in latency, poor handling on business hours.	Platform Benefits, Trust
		It is important as a trader to navigate yourself with a smooth user experience. There are problems when entering the application.	User Interface Experience, Ease of Use
		Problems when entering applications, especially often occur during critical hours for users.	Ease of Use, Trust
		The app is perfect for beginners, because it's intuitive, has lots of social elements, features stock research, and allows discussions with other users.	User Interface Experience, Ease of Use
		An unreliable application because it cannot open a portfolio and make transactions.	Trust
2.	Ajaib	Lack of customer support service.	Trust
		It's easy to register, there is an adequate level of security due to fingerprint scanning, it's easy to see stock prices, join the community, and can read stock-related news easily.	Ease of Use, Security & Privacy Risk, Social Influence
		The UI is quite friendly but the analysis features are incomplete so it is quite difficult to analyze.	User Interface Experience, Ease of Use
		Need to add detail statistics on the portfolio, the weight of the stock sector, asset trends and other things. There is also a need for improvement on the transaction history.	Platform Benefits
3.	IPOT	User friendly compared to other apps.	User Interface Experience, Trust
		UI is pretty good coupled with useful features for users. However, the server connection is quite slow with quite a lot of visitor capacity, causing a loss of momentum.	User Interface Experience, Platform Benefits
		Easy-to-understand application suitable for beginners. The features are complete and simple. The smoothness of making deposits is also fast, and the application is informative.	User Interface Experience, Ease of Use, Platform Benefits
		More attractive UI than the previous iteration of the application. Complete chart features.	Platform Benefits, User Interface Experience
		Difficulty signing up, unresponsive customer support.	Trust
4.	MOST Mandiri Sekuritas	Requires additional features such as order & trade list history, graphs for watch lists, and information related to stock corporate actions.	Platform Benefits
		Improper validation, asking the user to grant access to phones, calls, contacts, and files.	Security & Privacy Risk
		Bad UI display; Selection of font and background colors that are less than optimal.	User Interface Experience
		The application sometimes has errors and often reconnects to the MOST server but popups fail to update.	Ease of Use
		The application asks the user to allow phone call access. This makes users ask about privacy security.	Security & Privacy Risk
5.	Neo HOTS Mobile	Users have been using this app for three years. Lately, the server has been unresponsive so it's losing momentum. The app sometimes crashes on screen-off and requires the user to re-login.	Ease of Use, User Interface Experience
		The user gets a notification that there is a double login even though the user does not do this (the user is not aware of the application and website). The user then submits a complaint to customer service support that the complaint is that the user never double-logins and the customer service support only reminds them not to share the user's password with other parties.	Security & Privacy Risk, Trust

No.	Mobile Stock App	Review	Factor
		Customer service support experienced by users is unsatisfactory as a result of pin reset problems which take quite a long time.	Trust
		The UI is not compatible with Android 10. Users cannot perform full-screen optimizations on the app either.	User Interface Experience
		According to users, this application is user friendly. Then the application also has a variety of technical indicators to help users improve their technical analysis skills.	Ease of Use, Platform Benefits
6.	POEMS ID	The application has many constraints. One of them is the frequent forced closing of applications.	Ease of Use
		The user cannot launch the application. Then the graph has a problem where the graph does not appear correctly or at all.	Ease of Use, User Interface Experience
		Users have problems when entering orders. The application provides a notification that the input from the user is not in accordance with the current state of the stock market.	Ease of Use
		The app is responsive and has good features. But the icons on apps tend to get confusing. Bid and offer displays are also lacking, and need to develop a customizable menu.	Ease of Use, Platform Benefits, User Interface Experience
		The application needs additional features to view all book values in full, and a price alert feature.	Platform Benefits

Table 6: Questionnaire Questions

Construct	Indicator	Indicator Question
Ease of Use	EU1	It didn't take me much effort to learn the use of stock apps when I chose to use these stock apps.
	EU2	The features of the stock app that I use can be understood immediately.
	EU3	I can perform actions according to my wishes and according to what is intended to be done on the stock application that I use without any problems.
	EU4	I don't feel stiff when interacting in the stock application that I use, all interactions are flexible (Free to explore the application)
User Interface Experience	UIE1	I was able to navigate through the pages on the stock app I was using with ease.
	UIE2	I can look and search for what I want without any problems with the stock app I'm using.
	UIE3	Every menu and button placement on the stock application that I use can be easily understood for use.
	UIE4	I feel that the appearance of the design of each page in the stock application of my choice is consistent.
Platform Benefits	B1	I prefer this stock app because it has cheap brokerage fees.
	B2	The transaction features in the stock application that I use can simplify my stock transaction process.
	B3	Market data information through the stock application that I use can be accessed quickly and transparently.
	B4	My stock app platform offers a variety of activities to gain valuable knowledge from the market (eg: special webinars, stock study groups)
Security & Privacy Risk	SPR1	The stock apps I use do not share my personal information with third parties.
	SPR2	The stock application platform that I use protects information about my personal data.
	SPR3	I can tell which apps are real and which are fake (example: stock investment apps that guarantee profits).

Construct	Indicator	Indicator Question
	SPR4	I'm not afraid of any hacking of my stock app because I'm sure this stock app is safe.
Social Influence	SI1	I chose to use this stock app due to influence from other people.
	SI2	I chose this stock app because of the recommendations and opinions I asked others.
	SI3	The experience of other people using this stock application influenced me to use this stock application.
	SI4	Many people around me have used my preferred stock application.
Trust	T1	I believe that my stock transactions are transparent where I can see every buying and selling transaction that I make.
	T2	I am willing to trade with a large nominal on this stock application of my choice.
	T3	I did not find any data manipulation when making stock transactions on the stock application of my choice.
	T4	The stock application platform that I use is registered and protected by the Financial Services Authority (OJK).
Intention to Use	IU1	When I want to make stock transactions, I will always use this stock application of my choice.
	IU2	If I have money to invest or trade, I can't wait to use this stock app of my choice.
	IU3	I will do most of the stock transactions using the stock application of my choice.
	IU4	I plan to continue using my stock app of choice.
Usage Behavior	UB1	I predominantly trade stocks using this stock application of my choice compared to other stock applications.
	UB2	I often trade stocks using this stock application of my choice.
	UB3	I use this stock application of my choice in daily stock transactions.
	UB4	I definitely use this stock application to transact stocks at least 1 time in 1 month.