Students’ Investment Decisions with Intention as an Intervening Variable

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Abstract

This quantitative research aimed to determine the factors influencing students’ decisions to invest with intention as an intervening variable using the Partial Least Square (PLS) method through the smartPLS 3.0. The population in this study was UINSA students who already had accounts in GIS UINSA. The research sample of 110 respondents was selected using purposive sampling techniques. The results showed that intention influences students’ investment decisions. Returns and technological advancements influence their investment decision through intention, both directly and indirectly. Conversely, knowledge, motivation, and capital market training do not affect that, either directly or indirectly. Therefore, knowledge and Islamic capital market training need more attention. It can be done by optimizing the socialization and education about the Islamic capital market by holding seminars, training, webinar and providing facilities and tools that promote the motivation to invest in the Islamic capital market to influence the intention of students to invest.

Keywords: Investment Decision; Intention in Investment; Capital Market.

INTRODUCTION

Pandemic Coronavirus (COVID-19) has not been a barrier for the Indonesia Stock Exchange (IDX) to improve the Islamic capital market. During 2020, the investors in the Islamic capital market increased to 81.413 or grew by 18.6 percent in 2019. Although the growth of 2020 was slower than 2019, which grew by 54

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percent, it deserves to get appreciation by seeing the continuing growth in the mid of the pandemic. Besides it, data of August 2020 shows that the sharia shares dominate by 63 percent of all shares recorded in IDX, 50 percent of capitalization, 65 percent of trade volume, 68 percent of trade frequency, and value of trade transactions dominate by 52 percent of value trade total in IDX (Bursa Efek Indonesia, 2021)

This significant increase in each area was due to the intense socialization performed towards the community or prospective investors from Millenial groups. Based on IDX’s data per November 2020, there were 6,571 educational activities already carried out with an audience of over one million, supported by IDX 30 representative offices and 500 Investment Galleries (GI) throughout Indonesia.

GI is one of IDX’s programs that provides the tools and container for introducing the capital market early to academics and millennial groups. College students are the particular concern in this program because of their role as agents of change and pioneers of scientific progress and their potential to socialize and provide information about investing in the capital market. Students of economics and business would not find difficulties in doing these activities because they have basic knowledge of investment in lectures. They expectedly can realize what they have learned and set an example by being young and ideal investors and contributing actively to advancing and increasing investment in the capital market (Bakhri, 2018; Hana, 2019).

State Islamic University of Sunan Ampel Surabaya (UINSA) has a Sharia Investment Gallery (GIS) since 18 October 2016 to educate the importance of early investing. The total Investors of GIS UINSA till the end of 2020 reach 18,854, which means that GIS UINSA has contributed to the investor’s growth of the Islamic capital market by 23.2 percent. It is an excellent performance for an investment gallery. Nevertheless, a few students failed and decided to stop halfway through the journey because of a lack of intention to invest. They invest only for getting a return, following the trend, fulfilling an assignment from the lecturer, or getting wealth in a short time. The intention in accompanying investment’ decisions plays a vital role in sustainability and the success of investors’ investment. An intention can change someone’s behavior for the sake of reaching what he wants (Schiffman&Kanuk, 2007). Therefore, someone who has an intention to invest
is likely to decide to invest with making efforts can make him successful in investing, such as attending various educational, training, webinar, and seminar programs about investment.

Many factors can encourage someone to invest. Among them are perceived image, customer experience, benefit, supporting facilities, and response time (Sari & Pradana, 2018), rumor and information (Prayitno et al., 2015); psychological factors such as risk, payment, and company data (Lubis et al., 2015); and representational, excessive trust, availability, loss, regret, and pastoral biases (Subramaniam, 2017). However, many other factors have not been accommodated to reveal one’s intention in investing. According to Hani et al. (2020), several factors that influence students’ desire to invest in the capital market are investment education and experience in investing. Awais et al. (2016) corroborate this statement, stating that experienced investors have good and bad experience portfolios. Wise investors learn from experience to deal with and manage risks appropriately. With increased knowledge about financial information and the ability to analyze that information, they can manage investment risks efficiently to get high returns.

The review of several previous studies shows that the factors that influence a person’s decision to invest vary significantly, which can be caused by differences in research objects, years of research, and samples used. Therefore, the researchers of this study were interested in testing the factors that influence students’ investment decisions with intention as an intervening variable. The factors examined were investment knowledge, returns, motivation, capital market training, and technological advancements. Students are an essential asset to become reliable investors in the future, while GIS of UINSA has a considerable contribution to grow the numbers of Islamic capital market investors. Therefore, choosing GIS UNISA students as an object of this study is a very appropriate decision.

Furthermore, studies that test the factors of persons’ decision to invest with intention as an intervening variable are still scarce. This study hopes to contribute to the Islamic capital market’s future. It can be a reference and evaluation tool for other GIS to increase the students’ interest in investing because investing can trigger students’ investment decisions.
LITERATUR REVIEW

Consumer Behavior

Consumer behavior represents the action or process undertaken by a person before and after deciding to purchase a product or service (Firmansyah, 2018). According to Loundon & Bitta (1988), it is a decision-making process that requires individual activities to evaluate, obtain, use, or regulate services and goods. Kotler & Armstrong (1997) argued that end consumers’ buying behavior, households, and individuals, who buy products for personal consumption.

Based on all definitions offered above, consumer behavior in investing can be said to be the decision-making process of investors in choosing, evaluating, analyzing, looking for information, and finally deciding to invest their capital in one or more assets. Such capital investment is a behavior or attitude of an investor to decide to buy on the capital market.

Investment Knowledge

Investment knowledge is an understanding regarding various aspects of investment an investor must own (Syahroh et al., 2019) to understand better how to invest (Amhalmad & Irianto, 2019). Halim (2005) revealed that investing requires knowledge, business sense, and experience to analyze which stocks to buy. Adequate knowledge is needed to keep away from losses when investing in the capital market. Mawadah & Ratno (2017) proved that the more advanced the students’ knowledge, the more their intention in investing. Conversely, without adequate knowledge, they will have a low intention to invest. Therefore, for investors, this knowledge is essential. When they have broader investment knowledge, they will be more efficient and more precise in managing information to better their investment decisions. The hypotheses proposed related to this factor (investment knowledge) in this study were as follows:

$H_1$: Investment knowledge directly influences students’ intention to invest.

$H_2$: Investment knowledge directly influences students’ investment decisions and indirectly through intention.
Return

Return is one-factor motivating investors to invest in return for their courage in bearing investment risks (Tandelilin, 2017). According to Putri & Hamidi (2019), investors who dare to choose high investment risks have the hope of getting high returns. Conversely, those who do not want to bear high risks positively cannot expect that. So, the return can be a trigger for both beginners and experienced investors to invest. The hypotheses proposed for this factor (return) in this study were as follows:

H₃: Return directly influences students’ intention to invest.
H₄: Return directly influences students’ decisions to invest and indirectly through intention.

Motivation

Motivation is a condition that encourages someone to do an act consciously (Bangun, 2012). According to William (2005), investment motivation is an action taken by an investor to achieve the hope he thinks of: hope for a better future. The hope of having a better future can motivate students to invest because they have high expectations to get a return. Equipped with good investment knowledge, the motivation to invest will be stronger both by self-encouragement and external one from the environment (social). The significance of the motivation is very dependent on the strength or weakness of the motivation itself. The hypotheses proposed for this factor (motivation) in this study were as follows:

H₅: Motivation directly influences students’ intention to invest.
H₆: Motivation directly influences students’ investment decisions and indirectly through intention.

Capital Market Training

Training is one form of education that involves learning to acquire and improve skills beyond the traditional education system. It is done quickly with methods prioritizing practice in preference to theory (Rivai, 2009). Mega & Semara (2015) suggested that training can increase students’ investment knowledge to choose the type of investment they want to make. Wibowo (2018) also stated that someone who has participated in capital market training would invest after
getting new knowledge and inspiration or advice. This statement is reinforced by Bagus & Pramana (2019) findings that the more often a person participates in capital market training, the higher his intention in investing. So, capital market training can encourage investors to invest. Through training activities, investors get a lot of knowledge, inspiration, tricks, and advice to increase their intention in investing. So, the hypotheses proposed were as follows:

**H₇**: Capital market training directly influences students’ intention to invest.

**H₈**: Capital market training directly influences students’ investment decisions and indirectly through intention.

**Technological Advancements**

Tandio & Widanaputra (2016) stated that the development of technology helps students to be able to learn through internet-connected media. Information about the types and ways to invest is available in various media. The ease of technology can encourage students to start investing. The findings of Cahya & Kusuma (2019) also showed that the ease of technology utilization directly impacts people’s intention in investing, especially in technology-conscious generations. Therefore, technological advancements can increase investor intention and provide convenience in investing. The hypotheses proposed were as follows:

**H₉**: Technological advancements directly influence students’ intention to invest.

**H₁₀**: Technological advancements directly influence students’ investment decisions and indirectly through intention.

**Intention**

The intention is a sense of pleasure towards an object that makes a person try to obtain it through sacrifice, both in the forms of money and the other (Schiffman & Kanuk, 2007). It shows that An intention can change someone’s behavior for the sake of reaching what he wants. Therefore, someone who has an intention to invest is likely to decide to invest with making efforts can make him successful in investing, such as attending various educational, training, webinar, and seminar programs about investment. Then the intention in investing can trigger investors/potential investors to invest. The hypothesis proposed in this study was as follows:
H_{11}: Intention directly influences students’ intention to invest.

RESEARCH METHOD

This study used a quantitative research method with a population of UINSA students who already have an account in GIS. The research sample refers to Hair et al. (2011) which argued that the minimum sample size in PLS analysis is:

1. 10 times the most significant number of formative indicators used to measure a construct.
2. 10 times the most significant number of structural paths that lead to particular a construct.

Based on the above guidelines, the researchers take model number two, which is $10 \times$ the most significant number of structural paths that lead to a particular construct. In this study, 11 structural paths lead to latent decision variables. Hence, the number of samples taken is $10 \times 11$ structural paths = 110, so that the sample used is expected to represent a portion of the study population. Requirements for selected respondents are to have an account and have conducted sharia securities transactions. The data collection technique uses an online questionnaire with the help of the google docs application distributed to each member of the Islamic Capital Market Study Group (KSPMS). The analytical tool used in this study is Partial Least Square (PLS) with the smartPLS 3 application.

RESULTS AND DISCUSSION

In the outer model, convergent validity values can be seen from outer loading. Figure 1 shows that the extreme loading values are above 0.5, indicating that the convergent validity values of the indicators tested have met the requirements. The average variance extracted (AVE) was used to determine whether or not the discriminant validity meets the requirements. If it is higher than 0.5, then the discriminant validity meets the required conditions. The computational results show the AVE values have fulfilled the requirements with the following successive values of investment knowledge of 0.523; return of 0.593; motivation of 0.617; capital market training of 0.589; technological advancements of 0.564; the intention of 0.501; and decision of 0.585. Likewise, the cross-loading value of...
each indicator in the measured variable meets the requirements because the value is higher than that it other latent variables (cross-loading values are available in Appendix 1).

Instrument reliability can be determined by viewing the values of composite reliability and Cronbach’s alpha. A research instrument is reliable if the composite reliability values are above 0.7 and the Cronbach’s alpha values are above 0.6 (Solimun et al., 2017). The values of composite reliability and Cronbach’s alpha for investment knowledge, return, motivation, capital market training, technological advancements, intentions, and decisions are 0.814 and 0.697, 0.813 and 0.667, 0.827 and 0.685, 0.909 and 0.882, 0.885 and 0.844, 0.857 and 0.799, and 0.918 and 0.898, respectively.

Inner or structural models can be determined from the values of R-Square for each endogenous latent variable. The R-Square value is used as the predictive
power of the structural model. The range of values is 0.70, 0.45, and 0.25, each of which means robust/strong, moderate, and weak models. R-Square value in this study amounted to 0.629, meaning that 62.9\% of the variable intention can explain the variables investment knowledge, return, motivation, capital market training, and technological advancements. Other variables explain the remaining 37.1\%. Furthermore, the variable decision has an R-Square value of 0.700, meaning that it can tell the variables investment knowledge, return, motivation, capital market training, and technological advancements by 70\%. In comparison, the remaining 30\% is indicated by other variables not observed in the study.

The hypothesis being tested appears from the t-statistics value. The condition that the value must be above 1.96 for the two-tailed hypothesis test at alpha of 5 percent (see Table 1).

<table>
<thead>
<tr>
<th>Variable</th>
<th>T Statistics dan P Values</th>
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<tbody>
<tr>
<td></td>
<td>Direct Effect</td>
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<tr>
<td>Investment Knowledge (X&lt;sub&gt;1&lt;/sub&gt;) → Students’ Intention (Y&lt;sub&gt;1&lt;/sub&gt;)</td>
<td>.059</td>
</tr>
<tr>
<td>Investment Knowledge (X&lt;sub&gt;1&lt;/sub&gt;) → Students’ Decisions (Y&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>.454</td>
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<tr>
<td>Return (X&lt;sub&gt;2&lt;/sub&gt;) → Students’ Intention (Y&lt;sub&gt;1&lt;/sub&gt;)</td>
<td>2.459</td>
</tr>
<tr>
<td>Return (X&lt;sub&gt;2&lt;/sub&gt;) → Students’ Decisions (Y&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>2.017</td>
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<tr>
<td>Motivation (X&lt;sub&gt;3&lt;/sub&gt;) → Students’ Intention (Y&lt;sub&gt;1&lt;/sub&gt;)</td>
<td>2.151</td>
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<tr>
<td>Motivation (X&lt;sub&gt;3&lt;/sub&gt;) → Students’ Decisions (Y&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>.125</td>
</tr>
<tr>
<td>Capital Market Training (X&lt;sub&gt;4&lt;/sub&gt;) → Students’ Intention (Y&lt;sub&gt;1&lt;/sub&gt;)</td>
<td>2.012</td>
</tr>
<tr>
<td>Capital Market Training (X&lt;sub&gt;4&lt;/sub&gt;) → Students’ Decisions (Y&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>.010</td>
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<tr>
<td>Technological Advancements (X&lt;sub&gt;5&lt;/sub&gt;) → Students’ Intention (Y&lt;sub&gt;1&lt;/sub&gt;)</td>
<td>3.695</td>
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<tr>
<td>Technological Advancement (X&lt;sub&gt;5&lt;/sub&gt;) → Students’ Decisions (Y&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>2.778</td>
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<tr>
<td>Intention (Y&lt;sub&gt;1&lt;/sub&gt;) → Students’ Decisions (Y&lt;sub&gt;2&lt;/sub&gt;)</td>
<td>4.042</td>
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Source: Primary data (processed), 2021
Table 1 above shows the values of t-statistics and p-values between the observed latent variables with the following description:

Investment knowledge ($X_1$) did not affect students’ intention to invest ($Y_1$) in GIS UINSA with a t-statistics value of 0.059 <1.96 and a p-value of 0.953> 0.05. So, $H_1$ was rejected. This study results contradicted research by Mawadah & Ratno (2017), which stated that the more advanced the students’ knowledge, the more the students’ intention in investing. However, in reality, many students had enough knowledge but not yet intentioned in investing. The results contradict research performed by Syahroh et al. (2019), which stated that investment knowledge affects students’ intention in investing.

Investment knowledge ($X_1$) did not affect students’ investment decisions ($Y_2$) in GIS UINSA with a t-statistics value of 0.454 <1.96 and a p-value of 0.650> 0.05. Besides, investment knowledge ($X_1$) did not affect student investment decisions ($Y_2$) through the variable intention ($Y_1$) with a t-statistics value of 0.061 <1.96 and a p-value of 0.952> 0.05. Therefore, $H_2$ was rejected. The results of this study were corroborated by interviews with members of GIS UINSA, who stated that basic investment knowledge was considered not too important. The respondents prioritized useful knowledge instead.

Return ($X_2$) affected students’ intention to invest ($Y_1$) in GIS UINSA with a t-statistics of 2.459> 1.96 and a p-value of 0.014 <0.05. So, $H_3$ is accepted. Return is a reward for the courageousness of investors in bearing investment risks (Tandelilin, 2017). It is one of the factors motivating investors to invest. The desire to obtain a high return can lead the students to be intentioned in investing. This study results supported Tandio & Widanaputra (2016) research, stating that the variable return affects students’ intention to invest.

Return ($X_2$) influenced students’ investment decisions ($Y_2$) in GIS UINSA with a t-statistics value of 2.017> 1.96 and a p-value of 0.044 <0.05. In addition, return ($X_2$) influenced students’ investment decisions ($Y_2$) through the variable intention ($Y_1$) with a t-statistics of 2.211> 1.96 and a p-value of 0.027 <0.05. So, $H_4$ was accepted. Several factors can encourage someone to invest, one of which is to get a high return. Rational investors will expect high returns, even though the risks faced are also high. However, students whose income is still small or those who still get pocket money from parents will choose a low return with low risks. No certainty in income encourages them to choose to invest safely.
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Motivation ($X_3$) influenced students' intention to invest ($Y_1$) in GIS UINSA with a t-statistics of $2.151 > 1.96$ and a p-value of $0.032 < 0.05$. It means that $H_5$ was accepted. In general, someone will act if something makes him intentioned, such as investing for financial health in the future. The results of this study reinforced the research of Syahroh et al. (2019), which stated that motivation positively affects students' intention in investing.

Motivation ($X_3$) did not affect students' investment decisions ($Y_2$) in GIS UINSA with a t-statistics of $0.125 < 1.96$ and a p-value of $0.901 > 0.05$. In addition, motivation ($X_3$) did not affect students' investment decisions ($Y_2$) through the variable intention ($Y_1$) with a t-statistics value of $1.927 < 1.96$ and p-values of $0.055 > 0.05$. So, $H_6$ is rejected. Several things motivate investors to invest, including getting high returns. Most students want to get high returns but don't want to take high risks either. This risk factor is considered by students in decision-making, whether to invest or not.

Capital market training ($X_4$) affected students' intention to invest ($Y_1$) in GIS UINSA with a t-statistics value of $2.012 > 1.96$ and a p-value of $0.045 < 0.05$. So, $H_7$ was accepted. Various kinds of capital market training were provided by GIS UINSA, such as Islamic Capital Market Schools (SPMS), seminars, sharing discussions, and sharing-to-caring. Students felt happy following the training organized by GIS UINSA because, in addition to getting insight and knowledge, they also gained strong analytical skills and understood better the importance of investing from an early age. Such training attracted their intention to invest. This study supported the research of Bagus & Pramana (2019) and Wibowo (2018), which stated that capital market training significantly influences intention.

Capital market training ($X_4$) did not affect students' investment decisions ($Y_2$) in GIS UINSA with a t-statistics value of $0.010 < 1.96$ and a p-value of $0.992 > 0.05$. Also, capital market training ($X_4$) did not affect students' investment decisions ($Y_2$) through the variable intention ($Y_1$) with a t-statistics value of $1.702 < 1.96$ and a p-value of $0.089 > 0.05$. That is, $H_8$ was rejected. The results contradict Wibowo (2018) research, stating that someone who has participated in capital market training will tend to invest after getting new knowledge and inspiration or advice. Nevertheless, in reality, many students who have attended the training have not decided to invest because their money is only sufficient for meeting their basic needs. So that, they only want to learn about the Islamic capital market.
Technological advancements ($X_5$) affected students’ intention to invest ($Y_1$) in GIS UINSA with a t-statistics value of 3.695 > 1.96 and a p-values of 0.000 < 0.05. Therefore, $H_9$ is accepted. Technology helps investors access capital market information through the internet, helps them monitor stock price movements, and makes it easy for them to transact anywhere and anytime. The convenience provided by technology can provide motivation and intention for students to start investing. The results of this study reinforce the research of Cahya & Kusuma (2019), which stated that technological advancements influence intention.

Technological advancements ($X_5$) influenced students’ investment decisions ($Y_2$) in GIS UINSA with a t-statistics of 2.778 > 1.96 and a p-value of 0.006 < 0.05. In addition, technological advancements ($X_5$) influenced students’ investment decisions ($Y_2$) through the variable intention ($Y_1$) with a t-statistics of 2.616 > 1.96 and a p-value of 0.009 < 0.05. So, $H_{10}$ is accepted. Technological advancements are one factor for investors to invest. Sophistication, comfort, and ease of investing through technology make students confident in deciding to invest.

Intention ($Y_1$) influenced students’ investment decisions ($Y_2$) in GIS UINSA with a t-statistics value of 4.042 > 1.96 and a p-value of 0.000 < 0.05. That is, $H_{11}$ is accepted. The GIS UINSA strategies to attract students’ intention are in the forms of conducting socialization of Islamic capital markets to the academic community and the public, providing education such as training, seminars, Islamic capital market schools, holding group discussions, studies as a means of learning and coaching in the Islamic capital market. These strategies are proven to be able to increase students’ intention to start investing. The results reinforced Sulistyowati (2015) research, stating that intention had a significant effect on students’ investment decisions.

Among of five factors in this study, only return, and technological advancements influenced students’ investment decisions, both directly and indirectly through intention. A high return that is always accompanied by a high risk requires students to have the capability of analyzing shares to be purchased so that they, at least, can avoid losses.

In addition, good money management and risk management are needed by investors, especially students, to avoid the risk of significant losses. This means that students need good investment education in analyzing stocks, fundamental
analysis and technical analysis, and how to make good money management and risk management to be successful in the Islamic capital market. Therefore, it is not surprising that capital market training significantly affects students’ investment intention. However, this intention is still not able to encourage them to decide to invest because of other factors that prevent it. This shows a relationship between the return and capital market training in influencing students’ intention and investment decisions.

Then technology advancement makes it easier for students to analyze and screen shares that are their target, both technical and fundamental analysis, through applications that can be accessed and downloaded for free via smartphones.

In addition, the facilities and features that securities companies are constantly upgrading provide comfort for investors in making transactions in the capital market. Some securities provide advice on the best stock options every day, accompanied by an explanation of money management and risk management. Investors can analyze the recommended stocks without having to analyze all the stocks in the capital market. Therefore, it is not surprising when technological advancement significantly affects investment intention and its decision. This shows that capital market training, technological development, and return affect each other in increasing students’ investment decisions. Capital market training will provide vital education in investing, which can be applied easily with technological advancement. So that in the end, investors can reach maximum returns.

CONCLUSION

Returns and technological advancements influenced students’ investment decisions, both directly and indirectly through intention. Intention influenced students’ investment decisions. Meanwhile, knowledge, motivation, and capital market training did not affect students’ investment decisions either directly or indirectly through intention. The students realize that investment needs funds. However, all they have is allocated for meeting their primary needs instead of making an investment. For this reason, they are intentioned in investing, but no investment is made.
This study has implications: firstly, there has to be more attention for knowledge and education about the Islamic capital market. This can be done by optimizing the socialization and education of students about the Islamic capital market by holding seminars, training, Islamic capital market schools, and providing facilities and tools that promote the motivation to invest in the Islamic capital market to influence the intention of student to invest. In this matter, the thing to take notice is the selection of training materials, the quality of the presenters, the methods used in training, along with the facilities offered and the impact of the training that can be felt directly by students so that it can generate student intention in investing. Secondly, for the following researchers, it is hoped that they can consider other factors that directly or indirectly influence students’ investment decisions by adding new variables or indicators in future research to produce a broader picture of the research problem research.
REFERENCES


